AN INVESTIGATION OF THE IMPACT OF THE STRONG KIDS CURRICULUM ON SOCIAL-EMOTIONAL KNOWLEDGE AND SYMPTOMS OF ELEMENTARY AGED STUDENTS IN A SELF-CONTAINED SPECIAL EDUCATION SETTING

by

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A DISSERTATION

Presented to the Department of Special Education and Clinical Sciences and the Graduate School of the University of Oregon in partial fulfillment of the requirements for the degree of Doctor of Philosophy

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The present study examined the effect of Strong Kids, a social and emotional learning (SEL) curriculum, among a sample of 21 third, fourth, and fifth graders with emotional and behavioral disorders (EBDs) who received instruction in self-contained special education classrooms. All students received the Strong Kids intervention and completed questionnaires on SEL knowledge (Strong Kids Knowledge Test), emotional-behavioral problem symptoms (Strong Kids Symptoms Test), and perceived social skills (Social Skills Rating System-Student Form) across 3 assessment periods (Pretest 1, Pretest 2, and Posttest). The classroom teachers completed a social skills and problem behaviors questionnaire (Social Skills Rating System-Teacher Form) on each student at Pretest 2 and Posttest assessment periods as well as a survey on their perceptions of using Strong
Kids. The classroom teachers implemented the *Strong Kids*’ 12 weekly lessons as part of their classroom instruction. Results of this study indicated positive gains in SEL knowledge, as evidenced by statistically significant gains from pretest to posttest. A meaningful difference in students’ self-reported positive social-emotional skills was determined, with students reporting more skills after participation in *Strong Kids*. No significant effects of participation in *Strong Kids* were determined for emotional-behavioral problem symptoms or teacher perceptions of students’ social skills and problem behaviors. Teachers’ overall perceptions of the curriculum were that it was feasible, appropriate and valuable enough that they planned to continue to use *Strong Kids* in their self-contained classrooms. Implications of this study for educational practice in SEL with students with EBDs and future research efforts in this area are discussed.
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CHAPTER I

INTRODUCTION

This chapter outlines the prevalence of mental health problems in children and adolescents, the current school-based system for identifying and providing services to students with emotional and behavioral disorders, an evidence-based social and emotional learning curriculum designed for prevention and intervention of emotional problems, and the intention and goals of this doctoral dissertation study. The chapter begins with a statement of the problem followed by the goals of the study to investigate a social and emotional curriculum as an intervention program for students with emotional and behavioral disorders. The research questions are detailed at the end of the chapter.

Statement of the Problem

According to recent prevalence and epidemiologic studies, mental health problems affect an alarming number of children and youth. At least one in five children and adolescents have a mental health disorder and at least 1 in 10 have a serious emotional disturbance (U.S. Department of Health and Human Services, 2003). This prevalence of serious emotional disturbance means that approximately 6 million children and adolescents in the United States have an emotional, behavioral or mental disorder that severely disrupts their functioning in home, school or community (U.S. Department of Health and Human Services, 2003). According to a report by the U.S. surgeon general, of children and youth with serious mental health needs, only one in five receives any
mental health services (Kauffman, 2005). Too often services are inappropriate or are offered only after the problems have escalated (Greenberg, Domitrovich, & Bumbarger, 2001). Children with emotional and behavioral disorders (EBDs) and their families may suffer as their mental health problems go untreated or are not responsive to the limited services provided.

Another problem with mental health service delivery is that some children only become eligible for services after being identified for services from another system, such as special education (Greenberg et al., 2001). If children and adolescents with serious mental health needs must depend upon their eligibility for special education services as a means to access therapeutic services, they will continue to be under-served. Kauffman (2005) suggests that at least half of the children and youths with serious mental health needs should be identified for special education. According to the National Center for Educational Statistics (2006), only 1% of children ages 3 to 21 years receive services under Individuals with Disabilities Education Act (IDEA), identified under the category of emotional disturbance (ED). Therefore, students with EBDs are under-identified and have unmet mental health needs (Wagner, Kutash, Duchnowski, & Epstein, 2005).

According to Feil, Severson, and Walker (2002), schools lack systematic procedures for identifying students with behavior disorders. Teachers’ nominations and referral of at-risk students are the predominant, if not the only, school-based approach to meeting the needs of students with behavioral-emotional problems (Feil et al., 2002). Students are far more likely to be referred for academic than behavioral problems, and
according to a study conducted by Lloyd and colleagues in 1991, the academic referral rate peaks around Grade 2. Behavioral referral and certification for the disability category of ED is drastically different. Walker and his colleagues analyzed the referral and certification patterns for ED students and found that the referral rates tend to peak at Grade 10 (Feil et al., 2002). Identifying behavioral-emotional problems at the age of 15 does not provide many opportunities for intervention. Without early intervention, students with EBDs face later potential problems that will impact their adult lives.

For students identified as having EBDs, high rates of absenteeism, low grade point averages, course failure, and school dropout are often the outcomes (Wehby, Lane, & Falk, 2003). Wehby and colleagues attribute these poor outcomes in part to the lack of attention given to the academic needs of these students. According to the National Longitudinal Transition Study (NLTS), the first prospective longitudinal study of youth identified with ED through the school system, youth with ED had the lowest grades of all disability groups and 55% of youth left school by dropping out (Wagner, Kutash, Duchnowski, & Epstein, 2005). The dismal outcomes for students with ED did not end with their departure from school. Results of the NLTS indicate that three to five years after departing high school, these youth were less likely than youths in the general population to have achieved residential independence, and 58% had been arrested (Wagner, Kutash, Duchnowski, & Epstein, 2005). Another longitudinal study, the National Adolescent and Child Treatment Study (NACTS), examined data gathered on
800 children and youth identified as ED for a seven-year period. Again, a consistent pattern of poor outcomes was revealed, with NACTS results indicating that 40% of these youths did not obtain a high school diploma or GED (Wagner, Kutash, Duchnowski, & Epstein, 2005). The NACTS also found that there was a high degree of comorbidity between substance abuse disorders and emotional disorders (Wagner, Kutash, Duchnowski, & Epstein, 2005).

To avoid these poor outcomes, students with EBDs require interventions that target their skill deficits. Johns, Crowley, and Guetzloe (2005) cite work by Shores and Jack (1996) that explains, “children and youth are identified as having behavioral disorders based on their excesses and their deficits of social behavior. They respond to available social stimuli in unpredictable ways” (p. 1). Deficits in social competence are often accompanied by externalizing behaviors such as aggression and may lead to the development of childhood disorders (Gresham, 2002). Students with EBDs have a range of social skills deficits. Students may have difficulty interacting appropriately with peers and adults and expressing their physical and emotional needs in an acceptable manner (Quinn, Kavale, Mathur, Rutherford, & Forness, 1999). Walker, Ramsey, and Gresham (2004) found through their research of antisocial students that regular teachers identified students to be deficient particularly in those skills that support adjustment to the classroom environment such as “cooperates with others” and “listens carefully to instructions.”
Children and youth with EBDs not only have deficits in social competency, but also often experience deficits in academic proficiency. Trout, Nordness, Pierce, and Epstein (2003) conducted a review of the literature to determine the academic status of children with EBDs. They found that 91% reported that students with EBD were below grade level or years behind peers (Trout et al., 2003). Eighty-four cases made academic comparisons between students with EBD and other groups (Trout et al., 2003). When students with EBD were compared to students without disabilities, they generally did not perform as well as their peers without disabilities; they performed similar to their peers with learning disabilities in arithmetic and written expression; and they performed similar to their peers with ADHD in reading, arithmetic, and written expression (Trout et al., 2003). One of the findings of the NACTS longitudinal study was that children and youth identified as ED performed below grade level (Wagner, Kutash, Duchnowski, & Epstein, 2005). The NACTS found that three fourths of the youth were below expected grade level in reading and 97% were below expected grade level in math (Wagner, Kutash, Duchnowski, & Epstein, 2005). While it is unclear whether problem behavior causes poor academic performance or whether academic underachievement promotes inappropriate behavior, a relationship exists between the two, and students with EBD often experience deficits in both areas.

Specialized instruction for students with EBDs should remediate skill deficits in social behavior and academics. Knitzer and her colleagues suggested that in many special
education programs for students with EBD, the focus has been on controlling acting-out behavior instead of on academic and social skill development (Kauffman, 2005). Lane, Gresham, and O’Shaughnessy (2002) identify the absence of instruction in self-contained classrooms for students with ED as one of the primary challenges facing the field of EBD. In their review of the textbooks used to educate pre-service teachers, Lane and colleagues found that few devote much attention to academic instruction. If teacher education programs focus solely on developing competency in the areas of classroom management and conflict resolution, teachers may be ill prepared to educate their students with ED in core curricular areas such as reading, mathematics and social studies (Lane et al., 2002). In the same way that academics must be directly taught to students with EBD, social skills must be directly taught (Johns et al., 2005). Johns and colleagues identify the following as critical components of social skills training: 1) direct instruction, 2) the teachable moment, 3) the teacher as a role model for appropriate social skills, 4) recognition of appropriate social skills throughout the day, 5) special group projects, 6) conflict resolution, and 7) teaching self-management, including social skills strategies and anger management. Gable, Hendrickson, Tonelson, and Van Acker (2002) noted that a defining characteristic of students with EBD is their difficulty with socialization. Students with EBD often fail to accurately assess and appropriately respond to social situations (Gable et al., 2002). Gable and colleagues recommend addressing this deficit before tackling other behavioral problems.
Social and Emotional Learning

Educational programming for students with EBD should include instruction in emotion identification and emotion regulation if students’ difficulty with understanding and appropriately responding to social situations is to be addressed. Given the pressure on schools to offer programming in social, emotional, and academic learning, schools are in need of a coordinated educational approach to promoting academic success and social-emotional competence (Greenberg et al., 2003). One such approach, social and emotional learning (SEL), focuses on school-based prevention and intervention efforts that promote positive academic, social, emotional, and health behavior (Greenberg et al., 2003).

Payton et al. (2000) stated that SEL programs provide systematic classroom instruction that enhances children’s capacities to recognize and manage their emotions, appreciate the perspectives of others, establish prosocial goals and solve problems, and use a variety of interpersonal skills to effectively and ethically handle developmentally relevant tasks. (pp. 1-2) According to Payton et al., SEL programming also establishes classroom environments that support and reinforce this instruction and provides opportunities to extend learning through activities outside of the classroom.

Successful SEL programming includes clear objectives for each lesson, provides opportunities for application and reinforcement of SEL skills throughout the day, and includes assessment tools to measure individual mastery of SEL objectives (Denham & Weissberg, 2004). To be acceptable to schools in this age of accountability, SEL programs will need to be evidence based and easy to implement within the context of
other initiatives that require school resources (Greenberg et al., 2003). The No Child Left
Behind Act emphasized the need for schools to use educational methods that are
scientifically based and proven to work. Intervention selection must be considered within
the context of environments with finite resources (Merrell & Buchanan, 2006). As
Merrell and Buchanan (2006) noted, “It is simply not realistic to think that most systems
will be able to provide the best intervention needed to solve particular problems, or that
such intervention efforts, even if possible, will be delivered with fidelity across
situations” (p. 170).

One factor that may impact an intervention’s fidelity of implementation is its
social validity. Gresham and Lopez (1996) defined social validity as “the assessment of
social significance of goals of intervention procedures, the social acceptability of
interventions to attain those goals, and the evaluation of the social importance of the
effects produced by those intervention procedures” (p. 204). The social validity of an
SEL program will likely determine whether schools will adopt it for use and whether the
individuals implementing the program will do so in the prescribed manner. When the
intervention costs, both fiscal and in terms of teachers’ time and energy, are high and the
intervention does not match the needs of teachers and their students, schools will likely
be reluctant to allocate their limited resources to such a program.

Strong Kids

One promising SEL program is the *Strong Kids* series, developed by researchers
at the University of Oregon. The series consists of four developmentally appropriate
curricula aimed at prevention and intervention of emotional problems, and promotion of
emotional resilience (Merrell, Carrizales, Feuerborn, Gueldner, & Tran, 2007a; 2007b; 2007c; Merrell, Parisi, & Whitcomb, 2007; Merrell, Whitcomb, & Parisi, in press). Initial research efforts have shown promising results, as pilot studies showed that participation in the *Strong Kids* program has resulted in increases in students’ knowledge of social-emotional concepts and effective coping strategies and a reduction in self-reported social-emotional problem symptoms (Merrell, Juskelis, Tran, & Buchanan, 2008). General education teachers implementing *Strong Kids* have responded positively to the curriculum (Gueldner, 2006; Tran, 2007), with teachers in one study rating *Strong Kids* higher than the other SEL programs available for use in their district (Tran, 2007). The *Strong Kids* series has been evaluated as a universal intervention with general education students in elementary and middle schools (Gueldner, 2006; Tran, 2007) and as a component of services provided to high school students with EBDs (Isava, 2006; Merrell et al., 2008). *Strong Kids* – Grades 3-5 is designed to be both a prevention and intervention program to be implemented in a variety of settings (Merrell et al., 2007a).

Gersten, Baker, and Lloyd (2000) noted that “much of the research on special education populations has focused heavily on describing psychological attributes and levels of educational achievement and has tended to avoid research on the effects of interventions” (p. 2). Consequently, their recommendation was to “focus on conducting intervention research in real school settings” (Gersten et al., 2000, p. 3). There is a need to research *Strong Kids* as an intervention program for high-risk students with EBDs. No study to date has researched its use with elementary age students with EBDs who receive instruction in self-contained special education classrooms.
Research Questions

The current study investigated whether participation in Strong Kids – Grades 3-5 is effective at improving students’ knowledge of social-emotional concepts and effective coping strategies and reducing emotional-behavioral problem symptoms among students with behavior disorders. This research makes a unique contribution to the field by exploring whether Strong Kids is effective and acceptable as an indicated tier-3 intervention for a special population educated in a self-contained classroom setting. The specific research questions were:

1. What is the effect of participation in the Strong Kids social and emotional learning curriculum on knowledge of healthy social-emotional behavior and emotional-behavioral problem symptoms among elementary school students with behavior disorders in a self-contained special education setting?

2. What is the effect of participation in the Strong Kids social and emotional learning curriculum on these students' self-report of their positive social-emotional skills?

3. What is the effect of participation in the Strong Kids social and emotional learning curriculum on students’ emotional-behavioral problem symptoms as reported by teachers?

4. What are teachers' overall perceptions of using the Strong Kids social and emotional learning program to teach social-emotional skills to students with behavior disorders in a self-contained special education setting?
CHAPTER II

LITERATURE REVIEW

This chapter provides a brief literature review that expands on the needs of students with emotional and behavioral disorders. The goals of this literature review are to first, describe the characteristics of students with EBD and review the EBD field. In doing so, the need for research and programs targeting students with EBD will be discussed. The second goal of the literature review is to identify the specific skills associated with SEL and to summarize outcomes associated with school-based SEL programs. The third goal of the literature review is to consider the barriers to implementing SEL programs and to discuss how Strong Kids may address the barriers as well as address the need for programs for students with EBD. This review is not intended to be exhaustive, but to provide a basic outline of the literature related to the current study.

Characteristics of Students with EBD

Only one percent of school-age children and youth receive special education services under the category of emotional disturbance; however, researchers estimate that as many as five percent of all students have emotional and behavioral problems that could qualify them for services under the ED label (Kauffman, 2005; Merrell & Walker, 2004; Lane, Wehby, & Barton-Arwood, 2005). The federal definition of ED has been
problematic (Kauffman, 2005; Merrell & Walker, 2004), and Merrell & Walker advocated for a classification system based on the internalizing-externalizing dimensional approach. This system recognizes the behavioral characteristics often presented by students with EBD. Externalizing behaviors such as aggression, noncompliance, and destructive behaviors may be present alone or in combination with internalizing behaviors such as anxiety, withdrawal, and depression (Lane et al., 2005; Merrell & Walker, 2004). Students with internalizing problems have been largely unnoticed and underserved through special education (Merrell & Walker, 2004), perhaps because students who disrupt the school environment with their acting out behaviors are more likely to be referred for an evaluation for special education (Kauffman, 2005).

Using data from two longitudinal studies, the Special Education Elementary Longitudinal Study and the National Longitudinal Transition Study-2, Wagner et al. (2005) provided a national picture of the characteristics of students with ED served in special education. More than three fourths of students labeled ED are boys, and there is an overrepresentation of African Americans identified under this category (Wagner et al., 2005). Many students with ED come from households experiencing stress such as poverty and unemployment, with 33.2% of elementary/middle school students with ED living in poverty (Wagner et al., 2005), a percentage that is greater than that for other children with and without disabilities. Wagner and colleagues found that parents of children and youth with ED reported other disabling conditions such as attention-deficit/hyperactivity disorder (ADHD) or a learning disability in addition to the EBD for which the children receive services, with 64.9% of elementary/middle school children
reported to have ADD or ADHD and 24.9% reported to have a learning disability. Children and youth identified as ED are diverse in their backgrounds and they exhibit a large number of challenges, which makes them difficult to serve (Wagner et al., 2005).

School Experiences for Students with EBD

Children with ED are likely to experience less school success than their peers with and without disabilities (Wagner et al., 2005). Compared to their general education peers and students in other disability categories, children served under the category of ED experience academic underachievement including earning lower grades and making less academic progress (Lane et al., 2005). According to Wehby et al. (2003), teachers in self-contained classrooms for students with EBD devote only 30% of the school day to academic instruction. Classrooms for students with EBD have been described as poor academic climates that lack some of the necessary components that foster student learning (Wehby et al., 2003). Wehby and colleagues reported findings from descriptive studies by Shores and colleagues that revealed few praise statements, low rates of instructional demands and high rates of reprimands in EBD classrooms. Typical practices for students identified with ED have been largely punitive. Wagner et al. (2000) reported “almost half of elementary/middle school children classified with ED (47.7%) have been suspended or expelled at some time in their school careers, more than 4 times the rate among those with other disabilities (11.7%, p < .001)” (p. 89).

In addition to the academic and behavioral challenges students with ED face, they are likely to have teachers who feel ill prepared to instruct them (Wagner et al., 2006). Wehby et al. (2003) reported findings from the Westat Research Corporation that found
that up to 16% of teachers who serve primarily students with EBD lack certification in this area. Nelson (2000) reported that the supply of teachers adequately qualified to instruct students with EBD is “at an all-time low” (p. 207). Moreover, the burnout rate of teachers of EBD is high, and they are more likely to seek other positions (Merrell & Walker, 2004; Nelson, 2000) which means students with ED will often have new teachers who lack experience (Wehby et al., 2003). Wagner and colleagues reported that 92.3% of elementary students with ED spent at least part of their school day in a general education class, with students receiving an average of 30% of their instruction in special education setting. Given that approximately 25% of students with ED spend more than 79% of their instructional day in general education classrooms and given that federal initiatives such as No Child Left Behind and IDEA emphasize the importance of students’ participation in the general curriculum, it is alarming that most general educators have not received adequate preparation for working with students with disabilities and they generally feel that students with ED are among the least desirable to have in their classrooms (Wagner et al., 2006).

Need for Evidence Based Programs

Children and youth identified as ED represent a diverse group of students who exhibit a multitude of behavioral and academic problems. Students served under the label of ED receive instruction in a variety of settings, but most will spend a portion of their instructional day in the general education environment. The instruction students with ED receive may be compromised by the lack of training and preparation their teachers have, particularly in the area of academic instruction (Wehby et al., 2003). Given these
challenges, it is critical for students to receive evidence based interventions proven to work with special populations; however, “there is a severe paucity of programs that focus on special education students, particularly those classified as seriously emotionally disturbed (SED)” (Rones & Hoagwood, 2000, p. 238). Rones and Hoagwood conducted a review of school-based mental health services and found that most of the studies focused on preventive strategies to manage disruptive behaviors of young children, or on programs addressing mood disorders among high school students. They determined that there is a need for school-based mental health programs that target internalizing problems, such as depression interventions for elementary age students and both prevention and intervention programs for anxiety disorders (Rones & Hoagwood, 2000).

Although programs for students with EBD often include social skills training (Quinn et al., 1999); the efficacy of such interventions is uncertain (Lane et al., 2005). Gresham and colleagues examined the meta-analytic reviews of social skills training and after controlling for variables such as studies that included students with disabilities other than EBD, they concluded that social skills interventions conducted with students with EBD produced a 64% improvement relative to comparison groups (as cited in Lane et al., 2005). For social skills training to be most effective, it is recommended that instruction take into consideration the context and that performance feedback be provided (Gresham, 1997).

Social and Emotional Learning Programs

There is a need for programs that support the academic and social-emotional development of students with EBD. Social and emotional learning (SEL) programs may
fill this void. SEL has been described as a framework for school-based youth development (Greenberg et al., 2003; Weissberg & O’Brien, 2004). The goal of SEL is to address the diverse needs of students in a coordinated rather than fragmented approach (Weissberg & O’Brien, 2004). The core set of SEL competencies includes: 1) self-awareness, 2) social awareness, 3) self-management, 4) relationship skills, and 5) responsible decision making (Weissberg & O’Brien, 2004; Zins & Elias, 2006). Self-awareness includes emotion identification, recognizing personal strengths as well as strengths of others, and self-confidence. Social awareness is akin to empathy and taking the perspective of others. Self-management includes controlling one’s behavior and managing stress and setting goals. Relationship skills relates to establishing and maintaining positive relationships and using communication to effectively interact with others and solve problems. Responsible decision making includes making choices by considering the consequences, and taking responsibility for one’s decisions. These skills, while important for the healthy development of all children, are particularly critical for students with EBDs as they often experience deficits in these areas. In fact, one of the possible criteria for identification under ED is “an inability to build or maintain satisfactory interpersonal relationships with peers and teachers” (Merrell & Walker, 2004, p. 900).

Outcomes of SEL Programs

The research base for SEL curricula and programs is growing (Zins & Elias, 2006), and a number of SEL programs have been identified and reviewed by organizations such as the Center for Substance Abuse Prevention and U.S. Department
of Education. Zins and Elias listed 13 such programs as effective social and emotional learning programs. A meta-analysis conducted by Durlak and Wells (1997) revealed that primary prevention programs designed to prevent behavioral and social problems in children under the age of 18 both enhanced SEL competencies and reduced emotional and behavioral problems (as cited in Greenberg et al., 2003). The majority of the programs included in the review (73%) were implemented in schools (Greenberg et al., 2003). Kam, Greenberg, and Kusché (2004) examined the effectiveness of the PATHS (Promoting Alternative Thinking Strategies) curriculum with students with special needs. PATHS is a K-6 program consisting of 30-45 lessons per school year and it seeks to develop the following skills: emotional awareness, self-control, interpersonal problem solving, and peer relationships (Weissberg & O'Brien, 2004). Kam and colleagues found that the PATHS curriculum is effective when used in special education environments. In particular, the externalizing and internalizing behaviors of the intervention group children were found to decrease compared to control group children who exhibited an increase in these behaviors (Kam et al., 2004).

**Barriers to Implementation of SEL Programs**

While the research base exists to support the use of SEL programs, Zins and Elias (2006) noted that these evidence-based practices are not being widely used. One reason for this lack of widespread implementation may be the costs, both in terms of personnel time and fiscal dollars. Zins and Elias contended that effective SEL programs provide a good return for their costs; however, the costs for some SEL programs are extraordinarily high for schools with limited resources. For example, providing the Seattle Social
Development Program (Hawkins, Smith, & Catalano, 2004) cost $4,590 per student (Zins & Elias, 2006). In the study by Kam et al. (2004), teacher training for the PATHS program consisted of a 3-day workshop and 30-minute lessons were implemented three times per week. Zins and Elias noted that one key implementation issue is the integrity with which SEL programs are adopted and implemented. They stated, “We need to learn more about what reinforces the adoption of, adherence to, and sustainability of these interventions” (Zins & Elias, 2006, p. 7). Merrell and Buchanan (2006) suggested that research demonstrating the efficacy of programs, while critical, is not sufficient. Effectiveness of SEL programs in real-world settings needs to be examined to address the issues Zins and Elias raised regarding fidelity of implementation.

In summary, there is a demonstrated need for research focusing on the use of school-based mental health programs with special education students (Rones & Hoagwood, 2000). SEL programs focus on the healthy social, emotional and academic development of students, but their implementation is generally with regular education students. Many SEL programs are also resource-intensive, another barrier that may lead to schools not implementing the program with fidelity. The current study was designed to address some of these issues by examining the use of a low-cost, easy to implement SEL program, Strong Kids, with students with EBD. Previous studies have demonstrated the social validity of Strong Kids with general education teachers (Gueldner, 2006; Tran, 2007); however, its acceptability has not been studied with special education teachers instructing students in a self-contained setting. To advance the field of educating students
with EBD, the effectiveness of an SEL program as an intervention for these students must be examined.
CHAPTER III

METHOD

Design

A within-subjects, repeated measures, quasi-experimental design (see Table 1) was used for the current study. Although true experimental designs are the most powerful method for assessing educational intervention effectiveness, Gersten et al. (2000), citing work by Scruggs and Mastropieri (1994), noted a shortage of this research on special education populations due to great difficulties in designing school-based intervention studies. A traditional randomized treatment-control experimental design would not be feasible in the setting that was targeted, given this study’s population of interest, as the services and placement of students with Individualized Education Programs (IEPs) cannot be changed for the purposes of a research study. Therefore, true randomization at the student level was not feasible. Given the small number of students with EBDs served in self-contained special education classrooms, a within-subjects design was considered appropriate because it requires fewer subjects, is more practical for the target setting and population, and because it is more sensitive than between-subjects designs to the effects of the independent variable because it eliminates variance due to setting differences. The within-subjects, repeated measures, quasi-experimental design allowed the student researcher to study the effects of participation in the Strong Kids curriculum with a
special education population in self-contained classrooms. All four SLC classrooms were assigned to the intervention. Subjects were “nested” in existing classrooms, a design feature that is sometimes viewed as being problematic. However, Gersten et al. (2000) articulated the necessity for such nested designs in intervention research that is conducted in real world settings, noting that:

an increasing number of quasi-experimental designs are being employed that use intact classrooms and sometimes intact schools (Hunt & Goetz, 1997; Slavin & Madden, 1995) as the means of assigning participants to conditions. These studies are developed in response to real-world concerns about the education of students with disabilities. (p. 3)

Rounsaville, Carroll, and Onken (2001) described a Stage Model of Behavioral Therapies research and noted that the stage model’s innovative feature is its recognition that intervention research is not limited to randomized clinical trials. Using Rounsaville et al’s stage model paradigm, the current study falls within the category of Stage Ib: Pilot Trial. Rounsaville et al. (2000) explained that “comparison groups, in both the pilot (stage Ib) and major (stage II) efficacy trials need to be tailored to the particular type of behavioral treatment being evaluated and the research questions to be addressed” (p. 137).

In the current study, subjects essentially served as their own control, and the repeated measures allowed comparisons to be made within-subjects, with and without intervention. The independent variable for this study was Time, with three levels: Time 1 (Pretest 1), Time 2 (Pretest 2), and Time 3 (Posttest). Pretest 1 data were collected 4-6
weeks prior to collection of Pretest 2 data. The 12 Strong Kids lessons—the intervention—were implemented after the two Pretest data collection periods. Posttest data was collected immediately following implementation of the intervention.

Table 1

*Research Design*

<table>
<thead>
<tr>
<th>Group</th>
<th>Time 1: Pretest 1</th>
<th>Time 2: Pretest 2</th>
<th><em>Strong Kids</em> Curriculum</th>
<th>Time 3: Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classrooms A, B, C and D</td>
<td>O</td>
<td>O</td>
<td>X</td>
<td>O</td>
</tr>
</tbody>
</table>

*Participants and Setting*

Participants were selected from four self-contained special education classrooms for students with behavior disorders. These classrooms, known as Structured Learning Centers (SLCs), are in a K-12 school district in the Willamette Valley in Oregon. The city has a population of approximately 57,000 residents. The student population of the district is approximately 11,000. Seventy-nine percent of these students are listed as White, 15% as Hispanic, 2% as Native American, 2% as African American, and 2% as Asian. Sixteen percent of the district’s students receive special education services and 52% of the students are enrolled in free and reduced school lunch program, a figure slightly higher than the national average.

Participants included four special education teachers at four schools who instruct students in grades 3-5 in SLC classrooms, and 21 students who were receiving special
education services from these teachers. The teachers were selected based on their willingness to participate in this project. Students whose special education placement indicated SLC, but who were fully mainstreamed in regular education classes did not participate. District personnel elected to adopt the *Strong Kids* curriculum for use in the SLCs, therefore all students in grades 3-5 receiving instruction in the SLCs for all or a portion of their school day were eligible to participate. Out of 24 students who were eligible, 12% of these students (n = 3) either their parents did not give permission for them to participate, or the student had incomplete data due to absence or withdrawal from school at Posttest. Two additional students entered the SLC classroom after Pretest 1 and could not be included in the study. Of the 21 students who participated, 20 were male and 1 was female. Of these students, 43% (n=9) were in grade 3, 33% (n=7) were in grade 4 and 24% (n=5) were in grade 5. Student participants ranged in age from 8 to 11 years of age. Ten percent (n=2) of the students were 8 years of age, 48% (n=10) were 9 years of age, 24% (n=5) were 10 years of age and 19% (n=4) were 11 years of age. Of the 21 students who participated, 62% (n=13) had a primary disability of Emotional Disturbance. Nineteen percent (n=4) had a primary disability of Autism Spectrum Disorder and 10% (n=2) had a primary disability of Other Health Impairment. Traumatic Brain Injury or Communication Disorder was the primary disability for two of the students. Table 2 indicates demographic information for the students who participated in this study.
Table 2

**Demographic Information of Student Participants**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Classroom A</th>
<th>Classroom B</th>
<th>Classroom C</th>
<th>Classroom D</th>
<th>Total N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>4</td>
<td>7</td>
<td>4</td>
<td>5</td>
<td>20</td>
</tr>
<tr>
<td>Female</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>5</td>
<td>7</td>
<td>4</td>
<td>5</td>
<td>21</td>
</tr>
<tr>
<td>Grade</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>5</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>5</td>
<td>7</td>
<td>4</td>
<td>5</td>
<td>21</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>9</td>
<td>2</td>
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<td>2</td>
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<td>1</td>
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<td>1</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>11</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>5</td>
<td>7</td>
<td>4</td>
<td>5</td>
<td>21</td>
</tr>
</tbody>
</table>

**Intervention Program**

*Strong Kids: Grades 3-5* is a structured intervention curriculum designed to teach social and emotional skills and increase coping skills. It is based on the current research
on social and emotional development and on best practices from the social skills training literature. Concepts presented in the curriculum are focused on the five pathways to wellness described by Cowen (1994). The curriculum focuses on addressing internalizing problems and promoting resilience (Merrell et al., 2007a). Skills are taught through the use of explicit instruction in an easy-to-use format that can be implemented in a variety of settings by a number of professionals.

*Strong Kids* includes 12 weekly lessons that take approximately 45 minutes each to implement. Lessons consist of the following components: introduction of the skill, modeling of the skill, application activities, and a take-home assignment. Each lesson also includes “Tips for Transfer Training” designed to promote the generalization of the skills to other settings and the maintenance of the skills over time. Lessons begin with a review of previously taught skills. An optional booster lesson is included to provide an opportunity for review and practice later in the school year.

*Strong Kids* lessons are carefully sequenced. Lessons are presented in Table 3.

Table 3

<table>
<thead>
<tr>
<th>Lesson</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lesson 1: About <em>Strong Kids</em>: Emotional Strength Training</td>
<td>Overview of the curriculum, expectations for participation, and key terms</td>
</tr>
<tr>
<td>Lesson 2: Understanding Your Feelings</td>
<td>Identifying basic emotions and understanding how feelings can be comfortable or uncomfortable</td>
</tr>
</tbody>
</table>
Table 3 (continued)

<table>
<thead>
<tr>
<th>Lesson</th>
<th>Subject</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lesson 3: Understanding Your Feelings 2</td>
<td>Identifying appropriate ways of expressing feelings</td>
<td></td>
</tr>
<tr>
<td>Lesson 4: Dealing with Anger</td>
<td>Identifying anger and ways to control anger</td>
<td></td>
</tr>
<tr>
<td>Lesson 5: Understanding Other People’s Feelings</td>
<td>Using physical cues to identify others’ emotions</td>
<td></td>
</tr>
<tr>
<td>Lesson 6: Clear Thinking 1</td>
<td>Identifying negative thought patterns and common thinking errors</td>
<td></td>
</tr>
<tr>
<td>Lesson 7: Clear Thinking 2</td>
<td>Strategies for offsetting negative thought patterns</td>
<td></td>
</tr>
<tr>
<td>Lesson 8: The Power of Positive Thinking</td>
<td>Strategies for changing negative thoughts and beliefs</td>
<td></td>
</tr>
<tr>
<td>Lesson 9: Solving People Problems</td>
<td>Strategies for handling emotions and resolving conflict</td>
<td></td>
</tr>
<tr>
<td>Lesson 10: Letting Go of Stress</td>
<td>Strategies for relaxing and managing stress</td>
<td></td>
</tr>
<tr>
<td>Lesson 11: Behavior Change: Setting Goals and Staying Active</td>
<td>Using goal setting and increasing positive activities to create a healthy lifestyle</td>
<td></td>
</tr>
<tr>
<td>Lesson 12: Finishing UP!</td>
<td>Review of the key concepts and skills in <em>Strong Kids</em></td>
<td></td>
</tr>
</tbody>
</table>
One of the innovative aspects of the *Strong Kids* SEL programs is that they were designed specifically to be low cost, not only monetarily, but perhaps more importantly, in terms of the amount of training needed to successfully implement the curriculum, the amount of time required to cover the 12 lessons and related activities, and the ease of which supplementary materials can be accessed. *Strong Kids* was never designed to be the ultimate intensive program for students with intense needs. Rather, it was designed to be an easy-to-implement universal prevention program that also has potential applications for targeted and indicated populations of students whose needs are more complicated than those of typical students. Thus, the “power” of the *Strong Kids* programs is considered to be in its ease of adoption, implementation, and maintenance, and its breadth rather than depth of content coverage. Therefore, the use of *Strong Kids* in self-contained settings and with students who have intense social-emotional and academic needs is not necessarily its primary aim. The present study was the first investigation to evaluate the impact of the program on elementary-age students who are placed in self-contained classrooms due to severe social-emotional deficits and needs.

**Dependent Variables and Measures**

The current study had three quantitative dependent variables and one qualitative dependent variable. Dependent variables measured included: students’ knowledge of social-emotional concepts and coping skills, students’ emotional-behavioral problem symptoms, students’ positive social-emotional skills, and teachers’ perceptions of the acceptability and feasibility of the curriculum.
SEL knowledge. The first dependent variable, students’ knowledge of social-emotional concepts and coping skills, was measured using a 20-item test consisting of multiple choice and true/false questions (see Appendix A: Strong Kids Knowledge Test). This test was developed to provide a measure of how many concepts students learned from the Strong Kids curriculum. Previous research from several studies with this self-report tool has demonstrated that it is highly sensitive to Strong Kids intervention effects with students in general education classrooms, and that it has an adequate internal consistency reliability (e.g., ranging from .60s to .70s) for research purposes.

Symptoms. The second dependent variable, students’ emotional-behavioral problem symptoms, was measured using a self-report tool and a behavior rating scale. Students will complete the Strong Kids Symptoms Test, a 10-item self-report measure of negative affect and internalizing problems, developed by drawing critical items from the Internalizing Symptoms Scale for Children (see Appendix B: Strong Kids Symptoms Test). Several studies with this tool indicate strong correlations (.60 to .80 range) with established self-report measures of emotional problems, significant correlations with outcome and classification variables, and internal consistency reliability ranging from the upper .60s to upper .70s. Previous studies of Strong Kids that have included the symptoms test have shown mixed results in terms of sensitivity to intervention effects.

Teachers completed the Teacher Form – Elementary Level of the Social Skills Rating System (SSRS) for each student in the study. The SSRS is a 57-item questionnaire divided over three scales - Social Skills, Problem Behaviors and Academic Competence. For Social Skills and Problem Behaviors items, the SSRS asks the teacher to respond to
descriptions on a three-point scale of frequency, ranging from *Never* to *Very Often*. Items on the Academic Competence scale are rated on a 5-point scale. Test-retest correlations for the individual scales are in the mid .80s to low .90s (.84 to .93). Validity evidence is presented in the SSRS manual, with reports of significant correlations between the SSRS and other rating scales such as *Child Behavior Checklist-Teacher Report Form*.

**Social-emotional skills.** The third dependent variable, students’ positive social-emotional skills, was measured using the Student Form – Elementary Level of the *Social Skills Rating System* (SSRS). The 34-item self-report form employs a three-point scale to rate the perceived frequency of social behaviors. Merrell (2003) described the psychometric properties of the student forms as “adequate to acceptable” (p. 334), and this measure is likely the most widely-used and well-validated of all self-report social skills measures for children. According to the SSRS manual, the internal consistency coefficient for the elementary form is .83 and the test-retest reliability coefficient at four weeks was .68. The convergent construct validity of the elementary student form is modest. Merrell attributed this finding to the fact that two differing constructs, self-concept (as measured by the Piers-Harris Children’s Self-Concept Scale) and self-reported social skills, were compared. Such a comparison would not be expected to yield extremely high coefficients. It is worth noting that at the time the SSRS was developed (late 1980s) there were no other widely-available child self-report measures of social competence available for convergent comparison purposes.

**Social validity.** The fourth dependent variable, teachers’ perceptions of the acceptability and feasibility of the curriculum, was measured using an adaptation of
Gueldner’s (2006) *Strong Kids Social Validity Survey* (see Appendix C). Teachers were asked about the alignment of goals between the teachers and curriculum, the acceptability of the implementation procedures, their satisfaction with the results of using *Strong Kids*, the feasibility of implementing the curriculum, the importance of implementing the curriculum, and their confidence in implementing the curriculum. Teachers were asked to choose among three response choices for each question. For example, for the question: “How important do you believe it to be that students have knowledge regarding coping skills they can use during difficult times in their lives?” the teacher was asked to choose one of the following: very important, somewhat important, not important. Teachers were then asked to write responses to five open-ended questions regarding the modifications and accommodations required, if any, to effectively implement *Strong Kids* in SLCs and their general likes and dislikes towards the curriculum. Finally, teachers were asked to respond to three questions for each of their students about what kind of change did they observe in the student’s knowledge, problem-solving skills, and demonstration of positive emotion. For example, for the question: “What kind of change did you observe in ____’s demonstration of positive emotion?” the teacher was asked to choose one of the following: decline in demonstration of positive emotion, no change, increase in demonstration of positive emotion.

*Treatment Fidelity*

Treatment fidelity was measured in the current study to determine how well the curriculum was implemented as intended. Previous studies of the implementation of *Strong Kids* have reported high implementation rates (Gueldner, 2006; Tran, 2007).
Classroom-based observations of the lessons were conducted in each classroom using a fidelity checklist (see Appendix D). The observation checklist was developed by Harlacher (2008), a member of a research group based at the University of Oregon that initially developed and subsequently studies the Strong Kids curricula. It lists key components of the curriculum and asks the observer to mark each as either implemented or not implemented. A “percentage of components implemented” score was calculated for each observation where the entire lesson was observed. Teacher 1 had a mean rate of 79% of components implemented, Teacher 2 averaged 93%, Teacher 3 averaged 94%, and Teacher 4 averaged 91% of components implemented. One-third of the total lessons were observed for fidelity (16 out of 48 lessons), but a percentage of components implemented score could only be obtained for 11 of the 16 lessons because not all lessons were observed in their entirety. Three of the four teachers taught each lesson over the course of two days so five of the observed lessons were only observed on Day 1 or Day 2.

Inter-rater reliability checks were obtained for two complete lessons for 3 of the 4 teachers. One complete lesson and three partial lessons (i.e., Day 1 but not Day 2) were observed by two observers for Teacher 4. Observations were conducted by the student researcher and a research assistant using the observation checklists described above. Both complete and partial lessons observed were used to calculate inter-rater reliability. To calculate inter-rater reliability, the number of components each observer agreed upon and the number of components each observer disagreed upon were determined for each lesson observed. Percent of agreement was calculated for each lesson using the formula: \[ \frac{A}{A + D} \]
+ D) *100], where $A =$ the number of agreements and $D =$ the number of disagreements.
Agreement for Teacher 1 averaged 100%, Teacher 2 averaged 98%, Teacher 3 averaged 97%, and Teacher 4 averaged 95%.

*Procedures*

*Recruitment.* The student researcher contacted the director of programs and the facilitator of special services for the district. This verbal communication was made to confirm that *Strong Kids* had been adopted by the district’s Special Programs for use in the SLCs. The facilitator of special services who oversees the elementary SLC programs then contacted the SLC teachers to notify them of the opportunity to participate in the current study. According to the facilitator of special services, the teachers were interested in the study so the student researcher met with each teacher to explain the study and review the consent form. Teachers signed consent forms to participate in the study (see Appendix E).

*Teacher training.* Special Programs of the district provided each SLC teacher with a copy of the *Strong Kids* curriculum. District leadership personnel from were interested in providing training to all of the SLC teachers in SEL practices in schools and in procedures for effective implementation of *Strong Kids*. The session tailored to elementary-level teachers using *Strong Start* or *Strong Kids Grades 3-5* was held in November 2007. Two of the authors of the *Strong Kids* curricula conducted the 3-hour training session. The training focused on the implementation of *Strong Kids: Grades 3-5*. Teachers were trained how to use the instructional manual and the supplementary materials, how to prepare lessons and their students, and how to use suggested activities...
to promote the generalization of new skills learned across settings. The content of each lesson was reviewed and lesson activities were modeled. All of the SLC teachers participating in the current study attended this training. Before beginning implementation of the curriculum, each teacher was asked his/her comfort level with implementation and was offered additional support and training if not yet comfortable. Participating teachers did not report a need for additional training.

**Consent procedures.** The University of Oregon Human Subjects IRB Committee approved all of the consent and assent letters for participation in this research study. Teachers were given copies of the teacher consent form in person and returned the signed forms to the student researcher. Parent consent letters were given to each teacher to send home with students in the students’ folders. The letter explained that the Special Programs department of the district had adopted a SEL curriculum, *Strong Kids*, for use in the SLCs. The letter also described an opportunity for students to participate in the current study. The parent consent letter described the research study and asked the parent(s) or guardian(s) to sign the letter and return it to the classroom teacher for their child to participate in the project (see Appendix F). The teachers called parents of students who had not returned their consent forms to follow-up and verify if they had received the letter or if they needed a copy to be mailed to them. The student researcher’s phone number was provided on the parent consent letter for parents to call if they had questions about the project. Students whose parents granted permission participated in the study. The student who did not have parent permission did not participate in the research activities associated with the study; however, the student was still exposed to the *Strong*
Kids curriculum, as delivery of this instructional unit was part of the SLC program. This student was provided an alternate activity at the discretion of the teacher when the research assessment activities were conducted.

Student assent was obtained for this study. Students were provided student assent letters at Time 1 (Pretest 1). The student assent letters described this research study and asked students to sign for participation (see Appendix G). The student researcher read aloud the student assent letter to each class. Students were informed that their participation was voluntary and that they could choose not to participate at any time. Student assent was obtained using the student assent forms distributed to the students in their classrooms before the start of the study.

*SLC placement procedures.* As mentioned earlier, students received instruction in the SLC for all or a portion of their school day. Placement procedures for the SLC include the following: a) A behavior referral is made through the building process. This typically consists of a review of the concerns regarding the student by a building level team (i.e., Student Study Team, IEP team) designated to address behavioral issues at the individual student level. The building team develops a Behavior Support Plan (BSP). Placement procedures indicate that development of the BSP should be supported by the results of a Functional Behavior Assessment (FBA). b) Behavior interventions, or the BSP, are implemented and documented by the building team. Placement procedures indicate that as a general rule these interventions should be implemented for a minimum of six to eight weeks. c) Placement procedures indicate that the facilitator of special services should be notified if, following the implementation of a BSP, the building team
is considering placement in a SLC. A building team would be likely to consider SLC placement if the student’s response to the BSP was minimal. The building team must submit a “Behavior Profile” consisting of a description of the services the student currently receives, a description of behavioral concerns, the results of the FBA and behavior interventions, and the student’s current level of academic achievement. It is expected that the student has already been through an evaluation for special education services, and has a current eligibility and IEP. d) Placement procedures indicate that if the IEP team expects that a SLC placement will be considered as a placement option in a formal IEP meeting, a team representative should notify the facilitator. The facilitator will review the information presented by the team and provide information regarding available placement options based on the severity of the student’s behavior and program capacity. The procedures state that it is the responsibility of the student’s building level IEP team to develop IEP objectives that are consistent with current assessment data including the student’s response to the BSP. For students who are entering the district, the facilitator is responsible for coordinating a placement that is consistent with the student’s IEP.

Student participation. When selecting a time to teach Strong Kids, three of the four teachers determined that teaching one lesson over the course of two days would allow the lessons to be scheduled at times when all participating students were present in the SLC classroom and it would maximize student engagement in the lessons if the instructional period was closer to 30 minutes each instead of 45-50 minutes. One teacher said that due to his students’ schedules for receiving other special services (i.e., speech
therapy), it was not feasible to teach one lesson over the course of two days and he chose to teach each lesson in one day. One complete lesson was taught per week, although the teachers reported needing to spend an extra day beyond the day(s) allocated for the lesson to get through Lesson 4: Dealing with Anger. For this lesson, approximately 90 minutes of instruction was provided. Teachers made up missed lessons with individual students who were absent or who missed the lesson because of a behavioral crisis.

Data collection. Data were collected during the regular school day at three different times: Pretest 1, Pretest 2, and Posttest. When administering the student measures, the instructions and the items were read aloud to the students. The same three assessments (*Strong Kids Symptoms Test*, *Strong Kids Knowledge Test*, and *Social Skills Rating System – Student Form*) were administered at each of the assessment periods. For individual students who had difficulty participating in the whole-class format, an educational assistant and/or the teacher sat next to the student by his desk or in a different location in the classroom. The educational assistant and/or the teacher repeated the items to the student, if necessary. Students were given a small reinforcer (e.g., pencil, highlighter, eraser) from the student researcher’s ‘treasure box’ for completing the measures. The same procedures were followed for each assessment period. The day after completing Posttest measures, each class was given a pizza party as a celebration for completing the *Strong Kids* program. The student researcher provided pizza and drinks.

Each teacher completed the *Social Skills Rating System – Teacher Form* on each student over a one-week time period at Pretest 2 and at Posttest. Teachers were given snack items (e.g., soft drinks, cookies) when given the SSRS to complete. Each teacher
completed the social validity survey at the conclusion of the curriculum. When the survey was returned to the student researcher, the teacher was given a gift bag with two books and a gift card to Starbucks.
CHAPTER IV

RESULTS

This chapter describes the outcome or results of analyses used to evaluate data for this study. The results are presented in the order in which they were proposed.

Analyses

A within-subjects, repeated measures design was employed for this study. Shadish, Cook, and Campbell (2002) recommended adding an additional pretest observation to the traditional pretest-posttest design to better understand differences that may be the result of maturation instead of treatment. For this reason, differences within groups between data collection periods (Pretest 1, Pretest 2, and Posttest) were determined using two Pretest observations with one Posttest observation, using analysis of variance (ANOVA). The data were analyzed using repeated measures ANOVAs for the dependent variables SEL knowledge, symptoms, and social-emotional skills. Each of these repeated measures ANOVAs had one within-subjects factor (time) with three levels (Pretest 1, Pretest 2, and Posttest). Dependent samples $t$-tests were used to analyze teacher-reported social skills (SS) and problem behaviors (PB) because these variables were measured at only two time points (Pretest 2 and Posttest). The results of these analyses are reported by research question.

Although adjustments to $p$ value are customary to account for multiple analyses, a less conservative $p$ value of .05 was used to balance the low statistical power due to the
small sample size of this study. Cohen (1992) noted that for exploratory studies, a “less rigorous standard for rejection” might be preferred. As this study is a pilot trial (Rounsaville et al., 2001) with a modest sample size, it is appropriate to set the $p$ value at this level to determine if trends exist that should be explored with future research.

Data were analyzed using SPSS version 15.0 and examined for the presence of outliers and data entry errors. Because of the modest sample size, the data were visually examined in spreadsheet format in addition to being examined in histograms (Tabachnick & Fidell, 2007). Data were approximately normally distributed and therefore no transformations or other data manipulations (e.g., non-parametric tests) or deletions were conducted. Descriptive statistics for the entire sample are included in Table 4.

The *Strong Kids* manual includes the recommendation to teach the lessons once per week for 12 weeks. Tran (2007) conducted a study comparing massed (i.e., two lessons per week) versus distributed (i.e., one lesson per week) practice schedules. Tran found that the different schedules did not result in differences in student outcomes; however, social validity was greater in a 12 week, one lesson per week schedule than a 6 week, two lessons per week schedule. In addition, teacher participants in Tran’s study felt that the lessons were lengthy and that the lessons could be split in half. This change of format was recommended as an area of improvement for *Strong Kids* (Tran, 2007); however, splitting lessons has not yet been examined in previous studies of *Strong Kids*. In the current study, the one lesson per week format was used, but three of the four teachers decided to split the lessons. These three teachers taught one lesson over the course of two days each week. This change of format introduced a dosage variability
issue. Students received approximately 60 minutes of instruction per lesson in the classrooms in which one lesson was taught over two days compared to approximately 45 minutes of instruction in the classroom in which a lesson was taught in one day.

In addition to the difference in the amount of instruction, students in the classrooms in which one lesson was taught over the course of two days may have received more review of topics and key concepts. For example, Day 1 of a lesson always started with a review of previous topics and main ideas. The sample script for the Review section of a *Strong Kids* lesson offers a statement about the main ideas discussed during the last meeting as well as a list of ideas discussed in the previous lesson. To begin Day 2, teachers reviewed the skills or vocabulary introduced during Day 1 before moving on to complete the lesson components not covered during the first day of instruction of the lesson. Research assistants noted on the observation checklists that this review on Day 2 lasted as long as 10-15 minutes for some lessons. This additional review to begin Day 2 was not a required lesson component; however, it was incorporated by the three teachers who taught one lesson over the course of two days.

Dosage variability was introduced in this study as a result of the scheduling of lessons. Another issue of variability is that of the modifications made to the lessons in order to use *Strong Kids* with students with EBDs. In the “Adaptations for Unique Needs” section of Chapter 3 of *Strong Kids*, group leaders are encouraged to make “appropriate adaptations for the needs of your students” (Merrell et al., 2007a, p. 15). In this study, one of the accommodations made was to provide the lesson 1:1 if the student was absent or if the student’s behavior interrupted their participation in the group.
Although this is a common practice in self-contained classrooms and is easily accomplished because much of the instruction is offered in small groups of 2-3 students, it is a different format than that of whole group social skills instruction. Three of the four teachers stated that they needed to modify the examples, as recommended in the *Strong Kids* manual, in order to use the curriculum with their students. One teacher specified that the situations needed to be changed to reflect her students’ own problems and another teacher specified that the vocabulary examples needed to be modified to reflect students’ level of background information. For example, Teacher 3 noted that students had difficulty with the vocabulary, particularly with the concepts taught in Lessons 2, 4, and 9. This teacher spent more time on definitions and had to provide synonyms or additional explanation for some of the words included on the lesson supplements. The teachers found that the homework activities tended to work better as in-class activities instead of take-home activities, although none of the teachers reported using the homework activities solely as in-class activities. Due to the unique needs of the students, lesson implementation was somewhat individualized, although lessons were implemented in their entirety, as demonstrated by the high implementation rates found during the treatment fidelity observations.
Table 4

Descriptive Statistics

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Note. Primary Disability Category: ED = Green Square; ASD = Red Triangle; OHI = Orange Circle; CD = Blue Diamond; TBI = Violet X

Gersten et al. (2000) noted, “when random assignment is not possible, quasi-experimental designs may be the only suitable alternative” (p. 11). Such is the case in this
study; however, controversy surrounds the use of quasi-experimental designs. True experimental conditions require participants to be randomly assigned to one of the intervention conditions. In quasi-experimental designs, students from one classroom are often used as the intervention sample and a similar classroom of students is used as the comparison sample (Gersten et al., 2000). One source of controversy is the use of student as the statistical unit of analysis when it is the group or classroom that is assigned to a condition. By using this “nested” approach, the independence assumption of statistical analyses may be violated (Kutash, Banks, Duchnowski, & Lynn, 2007). Kutash et al. attempted to address the issue of determining the correct unit of analysis by studying the potential effects of nesting in studies that included students with ED. They concluded that the effects of a nested design may depend upon the variable of interest, with variables related to school and academic functioning being most susceptible to nesting effects (Kutash et al., 2007). Gersten et al. recommended using both the student and the class as a unit of analysis whenever sample size is large, but it was not possible for the current study.

Research Question 1

The first research question asked: *What is the effect of participation in the Strong Kids social and emotional learning curriculum on knowledge of healthy social-emotional behavior and emotional-behavioral problem symptoms among elementary school students with behavior disorders in a self-contained special education setting?* An ANOVA was conducted to evaluate the change in students’ knowledge of healthy social-emotional behavior from Pretest 1 to Pretest 2 to Posttest. Mauchley’s test of sphericity
was not statistically significant for *Strong Kids Knowledge Test*, \( W = .90, \chi^2(2) = 1.84, p = .40 \), indicating that the tests of statistical significance were sufficiently conservative and no adjustments needed to be made. There was a statistically significant effect for time on *Strong Kids Knowledge Test*, \( F(2, 38) = 7.25, p < .005 \). The proportion of variance accounted for by this effect was partial \( \eta^2 = .37 \). The results of the ANOVA supported the hypothesis that participation in the *Strong Kids* curriculum had an effect on students’ knowledge of healthy social-emotional behavior. Post-hoc tests of differences for *Strong Kids Knowledge Test* means yielded the following results: There were statistically significant differences between the mean scores for Pretest 1 *Strong Kids Knowledge Test* (\( M = 11.25, p < .01 \)) and Posttest *Strong Kids Knowledge Test* (\( M = 14.25, p < .01 \)), and between the mean scores for Pretest 2 *Strong Kids Knowledge Test* (\( M = 11.40, p < .01 \)) and Posttest *Strong Kids Knowledge Test* (\( M = 14.25, p < .01 \)). In sum, there was a significant difference in students’ knowledge of healthy social-emotional behavior between the pretest and posttest scores. This significant difference could be attributed to the impact of the *Strong Kids* curriculum and not maturation, as a significant difference was not found between Pretest 1 and Pretest 2 (see Figures 1, 2, 3, & 4).
Figure 1. *Strong Kids* Knowledge Test Scores by Student for Classroom A

Figure 2. *Strong Kids* Knowledge Test Scores by Student for Classroom B
Figure 3. *Strong Kids* Knowledge Test Scores by Student for Classroom C

Figure 4. *Strong Kids* Knowledge Test Scores by Student for Classroom D
An ANOVA was conducted to evaluate the change in students’ emotional-behavioral problem symptoms from Pretest 1 to Pretest 2 to Posttest. Mauchley’s test of sphericity was not statistically significant for *Strong Kids Symptoms Test*, $W = .76, \chi^2(2) = 5.05, p = .08$, indicating that the tests of statistical significance were sufficiently conservative and no adjustments needed to be made. The tests of within-subjects effects yielded the following results: There was not a statistically significant effect of time on *Strong Kids Symptoms Test* scores, $F(2, 38) = 1.01, p = .38$. The proportion of variance accounted for by this effect was partial $\eta^2 = .13$, though this value is not statistically significant. In sum, a significant difference in students’ emotional-behavioral problem symptoms between the pretest and posttest scores was not found; however, 11 students’ *Strong Kids* Symptoms Test scores decreased from Pretest 2 to Posttest (see Figures 5, 6, 7, & 8).

![Graph](image)

*Figure 5. Strong Kids Symptoms Test Scores by Student for Classroom A*
Figure 6. *Strong Kids* Symptoms Test Scores by Student for Classroom B

Figure 7. *Strong Kids* Symptoms Test Scores by Student for Classroom C
Research Question 2

The second research question asked: *What is the effect of participation in the Strong Kids social and emotional learning curriculum on these students’ self-report of their positive social-emotional skills?* To answer this question, an ANOVA was conducted to determine if there was a change in students’ scores on the SSRS – Student Form from Pretest 1 to Pretest 2 to Posttest. Mauchley’s test of sphericity was not statistically significant for SS score, $W = .90, \chi^2(2) = 1.47, p = .48$, indicating that the tests of statistical significance were sufficiently conservative and no adjustments needed to be made. There was not a statistically significant effect of time for SSRS score, $F(2, 30) = 2.88, p = .07$. The proportion of variance accounted for by this effect was partial $\eta^2$
=.35, though this value was not statistically significant at the $p < .05$ level. However, for this particular analysis the sample size was only 16. Scores were not available for students in Classroom A (n=5) because these students did not complete the SSRS at Pretest 2. Given such a small sample size, adjusting the alpha level to $p < .10$ rather than $=.05$ is one way to increase statistical power (Tabachnick & Fidell, 2007). When a more liberal alpha level is chosen, these results can be interpreted as statistically significant, and therefore post hoc tests for SSRS scores were examined given that $p < .10$. Post hoc tests of differences for means yielded the following results: There were statistically significant differences between the mean scores for Pretest 1 SSRS ($M = 42.50$, $p < .05$) and Posttest SSRS ($M = 47.50$, $p < .05$), and between the mean scores for Pretest 2 SSRS ($M = 42.88$, $p < .10$) and Posttest SSRS ($M = 47.50$, $p < .10$). In sum, when using a more liberal alpha level given the small sample size (n=16), meaningful differences in students’ self-reported social skills across time were detected (see Figures 9, 10, & 11).
Figure 9. SSRS – Student Form Scores by Student for Classroom B

Figure 10. SSRS – Student Form Scores by Student for Classroom C
Figure 11. SSRS – Student Form Scores by Student for Classroom D

Research Question 3

The third research question asked was: *What is the effect of participation in the Strong Kids social and emotional learning curriculum on students’ emotional-behavioral problem symptoms as reported by teachers?* To answer this question, a dependent samples \( t \)-test was conducted to evaluate whether teachers observed more emotional-behavioral problem symptoms before or after implementing *Strong Kids* using the Pretest 2 and Posttest problem behavior scores from the SSRS – Teacher Form (teachers did not complete SSRS scales at pretest 1). There were not statistically significant differences between the Pretest 2 SSRS – Teacher Form problem behavior mean score and Posttest SSRS – Teacher Form problem behavior mean score, \( t(20) = 0.08, p = .93 \). Teachers
reported fewer emotional-behavioral problems after implementing *Strong Kids* for 12 students, as evidenced by the decrease in their SSRS – Teacher Form problem behavior scores (see Figures 12, 13, 14 & 15).

*Figure 12. SSRS–Teacher Form Problem Behavior Scores by Student for Classroom A*
Figure 13. SSRS–Teacher Form Problem Behavior Scores by Student for Classroom B

Figure 14. SSRS–Teacher Form Problem Behavior Scores by Student for Classroom C
A dependent samples $t$-test also was conducted to evaluate whether teachers observed more social skills before or after implementing *Strong Kids* using the Pretest 2 and Posttest social skills scores from the *Social Skills Rating System – Teacher Form*. There were not statistically significant differences between the Pretest2 mean score and Posttest mean score, $t(20) = 1.57, p = .13$. These results indicate no changes in teacher perceptions of students’ social skills and problem behaviors that could be attributed to the impact of the *Strong Kids* program. Teachers reported greater social skills for 11 students, as evidenced by an increase in social skills scores from Pretest 2 to Posttest (see Figures 16, 17, 18, &19).
Figure 16. SSRS – Teacher Form Social Skills Scores by Student for Classroom A

Figure 17. SSRS – Teacher Form Social Skills Scores by Student for Classroom B
Figure 18. SSRS – Teacher Form Social Skills Scores by Student for Classroom C

Figure 19. SSRS – Teacher Form Social Skills Scores by Student for Classroom D
Effect Sizes to Determine Magnitude of Intervention Effects

Effect sizes are used to determine the relative magnitude of the intervention (Thalheimer & Cook, 2002). To calculate an effect size, the difference between two means (e.g., posttest minus pretest) is divided by the pooled standard deviation of the two points in time. Cohen (1992) defined small, medium, and large effect sizes as $d = .20$, .50, and .80, respectively. Effect sizes were calculated to measure the magnitude of the intervention program *Strong Kids* between group means on Time (Pretest 2 and Posttest) for the *Strong Kids Knowledge Test* and SSRS – Student Form. A large effect (ES = .92) was found for Knowledge scores from Pretest 2 to Posttest. The SSRS – Student Form scores, representing students’ assessment of their positive social-emotional skills, evidenced a small effect for Pretest 2 to Posttest (ES = .48). Small effect sizes of $d = .35$ and .31 were detected for the nonsignificant variables emotional-behavioral problem symptoms (*Strong Kids Symptoms Test*) and teachers’ report of students’ social skills (SSRS – Teacher Form), respectively.

Research Question 4

The fourth research question asked: *What are teachers’ overall perceptions of using the Strong Kids social and emotional learning program to teach social-emotional skills to students with behavior disorders in a self-contained special education setting?* To answer this question, the responses to the survey were reviewed.

Alignment of goals of curriculum to those of teachers. The four teachers were in 100% agreement in their responses to three of the five questions in this area. The teachers found the following to be “very important”: (1) the importance of students having
knowledge of coping skills they can use during difficult times and (2) the importance of students experiencing fewer social, emotional, and behavioral problems. The teachers found it “very feasible” that they could help address or provide intervention instruction in an effort to help students experience fewer emotional problems. Responses differed on the feasibility of instructing students on coping skills, with two teachers responding “very feasible” and two teachers responding “somewhat feasible.” Responses differed on their confidence in implementing a structured curriculum such as Strong Kids, with three teachers responding “very confident” and one teacher responding “somewhat confident.”

Acceptability of procedures. The four teachers were in 100% agreement in their responses to 2 of the 8 questions in this area. The teachers found the following to be “very acceptable”: (1) having scripted lessons and (2) having materials included in the curriculum. Three of the four teachers found the following to be “very acceptable”: (1) the amount of time it took to prepare for each lesson, (2) the number of lessons in the curriculum and (3) pre-service training. Three of the four teachers found the amount of time it took to implement each lesson “somewhat acceptable.”

Satisfaction with results. The four teachers were in 100% agreement in their responses to one of the three questions in this area. The teachers were “somewhat satisfied” with the knowledge that students demonstrated during the course of implementing the program. When asked what kind of change did they observe in individual student’s knowledge, the four teachers reported that the majority of their students had an increase in knowledge.
Feasibility, importance, and confidence in implementing curriculum. The four teachers were in 100% agreement in their responses to one of the five questions in this area. The teachers reported it was “very feasible” to implement Strong Kids in their self-contained special education classrooms. The responses differed to questions regarding the feasibility and importance of devoting 15 minutes of prep time to preparing for Strong Kids and teachers’ confidence in implementing the curriculum.

Accommodations and modifications used to implement Strong Kids. Two open-ended questions asked about the accommodations and modifications needed to use Strong Kids with students with disabilities. Three teachers responded that the language/wording needed to be changed, with two teachers indicating that it needed to be simplified. Two teachers responded that activities were changed to be “more interactive” or “hands-on.” Two teachers responded that they changed individual work to group work. Two teachers responded that they had students provide oral responses instead of written responses. All four teachers responded that they planned to use Strong Kids in their SLC classrooms again. Two teachers planned to extend the lessons by spending more time on certain topics, and one of these teachers stated that she would expand the curriculum by supplementing with other materials.

In sum, the results related to research question 4 indicated that the SLC teachers who were trained in using Strong Kids and implemented with their students in these self-contained settings indicated that in general, even though they did not acknowledge any significant changes in students’ behavior or knowledge over the course of the brief
program, the teachers viewed this approach is feasible, appropriate, and valuable enough that they planned to continue using *Strong Kids* with their students.
CHAPTER V
DISCUSSION

This chapter begins with a summary of the main findings of this study and a discussion related to the interpretation of these findings. Then, the limitations of the study are reviewed followed by a discussion of the direction for future research and practice.

Summary of Main Findings

The purpose of this study was to investigate the effectiveness of the Strong Kids social-emotional learning curriculum as an indicated tier-3 intervention for elementary age students with significant emotional and behavioral disorders, educated in a self-contained classroom setting. Specifically, this study examined the effects of participation in the Strong Kids program on students’ knowledge of healthy social-emotional behavior, on their emotional-behavioral problem symptoms, and on students’ self-reported positive social-emotional skills. This study also examined the effect of participation in the Strong Kids curriculum on students’ emotional-behavioral problem symptoms and on students’ social skills as reported by teachers. Finally, teachers’ overall perceptions of using Strong Kids to teach social-emotional skills to students with behavior disorders in a self-contained special education setting were examined using a survey.

Overall, students demonstrated significant increases in their knowledge of healthy social-emotional behavior after participating in the Strong Kids curriculum. No
significant effects of participation in Strong Kids were found on students’ self-reported emotional-behavioral problem symptoms. A meaningful difference in students’ self-reported positive social-emotional skills was determined, with students reporting more skills after participation in Strong Kids. No significant effects of participation in Strong Kids were determined for teacher perceptions of students’ social skills and problem behaviors. Teachers’ overall perceptions of the curriculum were that it was feasible, appropriate and valuable enough that they planned to continue to use Strong Kids in their self-contained classrooms.

**Impact on Knowledge of Healthy Social-Emotional Behavior**

Results from this study indicated that there was a statistically significant difference in students’ knowledge of healthy social-emotional behavior between the pretest and posttest scores. This finding is consistent with other pilot studies evaluating the efficacy of the Strong Kids curriculum on knowledge of healthy social-emotional skills and curriculum-related content (Castro-Olivo, 2006; Gueldner, 2006; Isava, 2006; Merrell et al., 2008; Tran, 2007). This study is the only study to date to demonstrate this finding with elementary-aged students with EBDs who receive special education services. Not only did students gain knowledge of healthy social-emotional behavior from their participation in Strong Kids as demonstrated by significant differences between the pretest and posttest scores, but also these gains were perceptible to their teachers. The four teachers reported that the majority of their students had an increase in knowledge as a result of their participation in Strong Kids.
Impact on Emotional-Behavioral Problem Symptoms

Results from this study indicated that a significant difference in students’ emotional-behavioral problem symptoms between the pretest and posttest scores was not found. Although some of the pilot studies have found significant effects of participation in *Strong Kids* on students’ internalizing symptoms (Tran, 2007; Merrell et al., 2008), others have reported a lack of statistically significant findings in this area (Castro-Olivo, 2006; Merrell et al., 2008). Of the studies reporting statistically significant or meaningful effects of participation in *Strong Kids* on students’ emotional-behavioral problem symptoms, only one of these studies evaluated the effect with students with EBDs who receive special education services (Merrell et al. 2008). The students in that study were in high school, and therefore, received a different version of the curriculum, *Strong Teens*.

Collectively, the findings from these pilot studies, including the current study, raise the question of how much change could realistically be expected with this type of population over a short period of time (i.e., 12 weeks). Given that students with EBDs are under-identified (Wagner, Kutash, Duchnowski, & Epstein, 2005), it is likely that those students who receive special education services under the category of ED are those with the most severe social-emotional deficits and needs. While students with EBDs require specially designed instruction to develop their social-behavioral skills, a brief program such as *Strong Kids* may be only one component of the comprehensive program necessary for students with intense needs. Of the four participating teachers, two specifically mentioned the need to spend more time on certain *Strong Kids* topics and one explained how she planned to expand the curriculum the next time she used *Strong Kids*.
in her SLC classroom by supplementing with other materials. It seems likely that a brief SEL program should be only one component of a multifaceted tier-III intervention for students with the most intense needs if meaningful reductions in emotional-behavioral problem symptoms are to be achieved.

*Impact on Students’ Positive Social-Emotional Skills*

Results from this study indicated that there was a meaningful difference in students’ self-reported positive social-emotional skills between pretest and posttest scores. When a more liberal $p$ value of .10 was used to account for the small sample size (n=16), the difference was statistically significant. Students reported more positive social-emotional skills at posttest after participating in *Strong Kids*. The overall sample size for this study was 21 students; however, students in one classroom (n=5) did not complete the SSRS – Student Form at Pretest 2 so they were not included in this analysis. Although the results indicated that no significant difference was found on teachers’ report of students’ social skills between Pretest 2 and Posttest, two of the four teachers reported on their surveys that a majority of their students demonstrated an increase in their demonstration of positive emotion. These results are promising, but should be considered as exploratory and tentative, given the nature of this study and the sample that was included. In a related vein, the assessment instrument that was used to measure self-reported social-emotional skills—the SSRS—is limited in its scope, and primarily measures social competence. There is a dearth of validated and psychometrically sound assessment tools that measure the broad range of skills that are covered in most SEL programs. Therefore, it is possible (but not conclusive) that the outcome measure may
have underestimated the actual impact of students’ self-perceived improvements in social-emotional competence and skills.

**Impact on Students’ Emotional-Behavioral Problem Symptoms as Reported by Teachers**

Results from this study indicated that a significant difference in students’ emotional-behavioral problem symptoms as reported by teachers was not found between Pretest 2 and Posttest. Teachers’ observations were consistent with students’ own ratings of their emotional-behavioral problem symptoms as neither students’ self-report nor teachers’ reports indicated significant differences in scores at Posttest as compared to Pretest 2 after receiving the *Strong Kids* program. This finding supports the idea that students with EBDs who have intense enough needs as to require a self-contained setting in which to receive special services may need a comprehensive SEL program rather than a brief, 12-week program before meaningful differences in students’ emotional-behavioral problem symptoms can be detected.

Teachers reported fewer emotional-behavioral problems after implementing *Strong Kids* for 12 of the 21 students, as evidenced by the decrease in their SSRS–Teacher Form problem behavior scores. A little more than 50% of the student participants showed a decrease in emotional-behavioral problem symptoms after participation in *Strong Kids*, indicating that a curriculum that explicitly teaches SEL competencies is an initial effort to address these students’ severe social-emotional deficits. The literature has shown that the efficacy of social skills interventions is uncertain for students with EBDs (Lane et al., 2005), but that the effectiveness of such training can be enhanced if instruction takes into consideration the context and if performance feedback is provided.
(Gresham, 1997). *Strong Kids* incorporates role-playing into many of the lessons so there is an opportunity for teachers to provide students with performance feedback. When discussing the modifications needed to in order to use *Strong Kids* with their students, two of the SLC teachers reported the need for more role-plays, both because of its interactive nature as well as because they provide students more practice time with the target skills.

A related issue to consider with respect to the lack of significant change on mean scores of the SSRS problem behavior scores of both students and teachers is that the *Strong Kids* curriculum, like many SEL programs, is not aimed at reducing negative behavioral and emotional problem symptoms. Rather, it is focused on enhancing positive assets such as coping skills, emotion knowledge, resilience, social competence, problem-solving ability, cognitive change strategies, and so forth. It is possible or likely that meaningful changes in these areas might reduce problem symptoms, but measures of such characteristics are only marginally relevant to the components of these interventions.

**Limitations of the Present Investigation**

*Modest sample size.* Sample size is one of the four variables involved in statistical inference (Cohen, 1992). Generally speaking, the *N* must be increased if statistical power is to be increased. Self-contained classrooms are inherently smaller than regular education classrooms. They are designed to provide each student with an intensive, individualized program so fewer students can be accommodated without compromising the classroom staff’s ability to meet students’ individual needs. All four of the SLCs in
the district that serve students in grades 3-5 participated in this study. At the time of participant recruitment, the total number of students whose special education placement indicated SLC was 32; however, six students were fully mainstreamed in regular education classes and two were in primary grades (i.e., grades 1-2) so they did not participate. Out of 24 students who were eligible to participate, two had incomplete data due to absence or withdrawal from school at post-test and could not be included in the study. One student’s parent did not give permission for him to participate; therefore, the final sample size was 21 students. This modest sample size limits this study’s ability to detect statistically significant results.

*Lack of true experimental design.* The most powerful method for assessing educational intervention effectiveness is the use of true experimental designs; however, a randomized treatment-control experimental design was not feasible. The quasi-experimental design used in this study utilized subjects that were “nested” within classrooms because randomization at the student level was not feasible. This study’s design also lacked a control group as all four SLC classrooms were assigned to the intervention. While this design was considered appropriate for the target setting and population, it limits the ability to draw causal inferences.

*Use of indirect measurement.* This study used indirect measures for the following variables: emotional-behavioral problem symptoms and social-emotional skills. Students self-reported their symptoms on the *Strong Kids Symptoms Test* and their social-emotional skills on the SSRS – Student Form. Teachers reported students’ behavioral problems and social skills using the SSRS – Teacher Form. No direct measures, such as
classroom observations, were used to determine if students showed decreased symptoms and improved social skills following their participation in *Strong Kids*. One disadvantage to using behavior rating scales is that they assess perceptions of behavior, but they do not provide actual observational data. Students with EBDs may have difficulty accurately assessing their own symptoms and skills.

**Short-term duration of the intervention.** The *Strong Kids* curriculum consists of 12 weekly lessons so the intervention is approximately three months in duration. Effects of participation in *Strong Kids* were measured immediately after the conclusion of the program. Although doing so allowed this researcher to determine the immediate effects of the intervention, it does not allow any conclusions to be drawn about the maintenance of gains from the curriculum over time. Harlacher (2008) evaluated whether general education students exposed to the *Strong Kids* curriculum would have positive gains that maintained at a 2-month follow-up testing period. The positive gains that the students in Harlacher’s study made were maintained at follow-up. In addition, prevention/early intervention programs like *Strong Kids* may yield results that are not visible until later on – after the intervention has had an opportunity to impact future situations.

**Brief SEL Program.** Time feasibility and ease of implementation were two major considerations in the development of *Strong Kids*. These qualities increase the likelihood that it can be seamlessly integrated into an existing instructional program without requiring extensive training and resources to implement. Indeed, “the advantage of this programming approach is that Strong Kids is brief, efficient, skill-based, portable, and focused” (Merrell et al., 2007a, p. 4). While these qualities make *Strong Kids* an
attractive and effective prevention/early intervention program, it is obviously not entirely sufficient for severely impacted students, nor was it ever intended to be. Children and youth with severe mental health problems, including students with EBDs who qualify for special education services, have significant social-emotional deficits that require comprehensive, intensive intervention. *Strong Kids* has promise as one component of such an intervention; however, it is limited in its strength as a stand-alone tier-3 intervention.

**Directions for Future Research**

It has always been a challenge to conduct intervention studies in schools (Kutash et al., 2007). Gersten et al. (2000) noted the need for quasi-experimental designs when true experimental designs are not feasible as a means of advancing the field of research on the education of students with disabilities. Quasi-experimental designs, while not as powerful, are a better alternative than not conducting intervention research in schools. That said, there is a need for additional studies evaluating interventions for students with EBDs who receive special education services. Studies that include larger sample sizes and utilize experimental designs would be useful. As students cannot be randomly assigned to placement in special education classrooms, like the SLCs, the subjects will likely be “nested” within classrooms. Kutash et al. (2007) recommended that, “if the observations are not independent the ideal design would be one that involves the randomization of many schools rather than students within schools” (p.168). Future research should look at a treatment-control design with many SLC classrooms from multiple schools and even districts randomly assigned to conditions.
In this study, the impact of the SEL program was evaluated using knowledge, symptoms and social skills measures. Significant results were found for knowledge gains and meaningful results were found for students’ self-report of their social skills. It can be argued that using growth and outcome measures that focus on a broad range of positive characteristics may help to better measure the impact of *Strong Kids*, as the curriculum, like many SEL programs, was designed to enhance positive assets. Few such measures exist that are validated and psychometrically sound, but one new assessment tool developed by Merrell (2007), the *Social-Emotional Assets and Resilience Scale for Children* (SEARS-C), is being researched. Harlacher (2008) found that the SEARS-C correlated significantly with other measures of SEL skills, including the *Strong Kids Knowledge Test*. Future research on the impact of SEL programs should incorporate the use of measures that focus on a broad range of positive assets, as that may be how the effects of exposure to *Strong Kids* may be detected.

This study represents an initial effort to determine the effectiveness of an SEL program with students with EBDs who are instructed in a self-contained classroom. As discussed earlier, the effects of participation were seen in some areas (students’ knowledge and self-reported social skills), but not in others (emotional-behavioral problem symptoms, teacher reported problem behaviors and social skills). It seems potentially useful to evaluate SEL programs of varying intensity and duration with this population, to see what is the minimum amount of time and content coverage that results in meaningful change (e.g., what is the most efficient). Other SEL programs exist that are more comprehensive than *Strong Kids*; however, such programs may be too resource
intensive to be implemented in self-contained special education settings with fidelity. Research to determine the depth and breadth of SEL skills instruction required that results in significant differences in addressing students’ social-emotional deficits is necessary.

The design of this study looked at the student as the unit of analysis, but the subjects were “nested” in existing self-contained special education classrooms that offer supports and services to students with EBDs. These behavior classrooms are different from regular education classrooms in that many provide specific structure and reinforcement systems (i.e., a level system) in addition to specially designed instruction in behavior and social skills. Studies that control for similarities and differences in the overall structure of self-contained BD programs that include SEL components would be useful, although admittedly very difficult to do.

Conclusion

The present study has provided initial evidence of using a promising SEL program with elementary age students with EBDs who receive instruction in self-contained special education classrooms. Positive results were found regarding students’ knowledge of healthy social-emotional behavior, students’ self-reported positive social-emotional skills and teacher acceptability for the Strong Kids curriculum. Such findings provide evidence for the inclusion of a SEL curriculum in the educational program for students with EBDs, although it is recognized that for students with significant social-emotional deficits, a program like Strong Kids will likely need to be one component of a comprehensive, intensive intervention. Future study is needed to determine the extent of
SEL skills instruction necessary to significantly impact students receiving special education services. Social-emotional learning will be an important factor as schools continue to work to improve the experiences of students with EBDs.
Part Two: Strong Kids Knowledge Test

**Directions:** This test has 20 questions about healthy and unhealthy ways to express feelings, thoughts, and behavior. Read each question carefully and pick what you think is the best answer.

**TRUE-FALSE.** Read each sentence. If you think it is true or mostly true, circle the T, which means “true.” If you think it is false or mostly false, circle the F, which means “false.”

1. T F Self-esteem is your feelings of worth for yourself.
2. T F When identifying a problem, it is important to describe how you feel and then listen to how the other person says they feel.
3. T F When people feel embarrassed, they are likely to stand tall, smile, and talk to others.
4. T F Clenched fists and trembling or shaking hands are often signs of stress.
5. T F Your friend took the last ice cream bar at the class party and you hadn’t gotten one yet. A good way to deal with this is to first identify how you feel, figure out if you feel comfortable or uncomfortable, and then choose 3 positive ways to express your feeling.

**MULTIPLE CHOICE.** Circle the letter that goes along with the best answer for each question.

6. Devin’s gym teacher tells him to try out for the basketball team. Devin thinks that he is too short and won’t make it, so he decides to not try out for the team. What thinking error is Devin making?
   a. Binocular vision
   b. Black and white thinking
   c. Making it personal
   d. Fortune telling
7. An example of an emotion that is uncomfortable for most people is:
   a. Excited
   b. Frustrated
   c. Curious
   d. Content

8. What is an emotion?
   a. A thought you have about a situation
   b. Your inner voice inside your head
   c. A memory you have about something that happened to you
   d. A feeling that tells you something about a situation you are in

9. Self-talk is a way to calm down after you get angry. Self-talk includes telling yourself
   a. I don’t deserve this
   b. I should get angry when something like this happens
   c. I can work through this
   d. I need to stop getting angry so often

10. Which of the following statements best describes empathy?
    a. Knowing how you are feeling
    b. Not knowing why another person is feeling sad
    c. Understanding another person’s feelings
    d. Thinking about another person

11. What is the meaning of the thinking error dark glasses?
    a. Looking at the whole picture
    b. Seeing only the part of a situation that makes you sad
    c. Trying to see things in a different way
    d. Thinking about only the negative or bad parts of things

12. Thinking errors occur when
    a. You see things differently than what really happened
    b. You see both the good and bad of each situation
    c. You think something different than your friend
    d. You tell yourself you shouldn’t try to do something
13. **Rereading** is a way to
   a. See the whole picture
   b. Think about the things that make you smile
   c. Think about the situation more realistically
   d. Think about what you will do next

14. Why would you want to know how someone else is feeling?
   a. So you can leave them alone when they're angry
   b. To better understand that person's feelings
   c. To tell other people about that person
   d. To act the same when you are together

15. What does the **ABCDEF plan** for optimism help you to do?
   a. Look at both sides of a situation
   b. View situations more positively
   c. Control your positive and negative thoughts
   d. Realize that you sometimes have no control over things

16. **Conflict resolution** is best described as
   a. Discussing a problem until there is a winner and a loser
   b. Arguing with another person until they see your point and give in
   c. Problem-solving so you can reach an agreement
   d. Talking about the problem until something changes the other person's mind

17. Which of the following is a **positive way** to express how scared you are for your parents to get your report card?
   a. Tell them why you are scared
   b. Hide your report card
   c. Tell your parents they are expecting too much from you
   d. Say that your grades were bad because other kids at school distracted you

18. Why is it important to **make an agreement** when you are trying to solve a problem?
   a. To understand what the other person is feeling
   b. To let the other person know what you think about the problem
   c. To make sure both people accept the solution to the problem
   d. To solve the problem more quickly
19. Which of the following is one of the best ways to deal with a problem with you are feeling stressed?
   a. Crying
   b. Talking about the problem with a friend
   c. Complaining to your mom
   d. Ignoring the problem

20. Which of the following is the better way to deal with feeling very angry when the person next to you in class keeps talking and annoying you?
   a. Yell at them and tell the to stop
   b. Call out to the teacher about the student
   c. Take their backpack to get even
   d. Stop, count to ten, and try to relax
APPENDIX B

STRONG KIDS SYMPTOMS TEST
## Part One: Strong Kids Symptoms Test

**Directions:** The following statements tell some ways that kids might sometimes feel and things they might sometimes do. Read each of these statements and decide how often they are true for you for the past month. Ask yourself, is this *Never True, Hardly Ever True, Sometimes True, or Often True* for me? After you have decided how often the statement is true for you, make an X in the box that goes with that answer. There are no right or wrong answers, just choose the answer that tells how you feel.

<table>
<thead>
<tr>
<th></th>
<th>Never True</th>
<th>Hardly Ever True</th>
<th>Sometimes True</th>
<th>Often True</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. There is very little that I like to do.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. I can’t deal with my problems.</td>
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<tr>
<td>3. I argue with other people.</td>
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<tr>
<td>4. I get so mad that I break or throw things.</td>
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<td>5. I worry about things.</td>
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<tr>
<td>6. I feel depressed or sad.</td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>7. Things don’t work out for me.</td>
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<tr>
<td>8. I get headaches.</td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>9. I feel sick to my stomach.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. I argue with my parents.</td>
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</tbody>
</table>

**TOTAL SCORE**

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APPENDIX C

SOCIAL VALIDITY SURVEY
Alignment of goals between teachers and curriculum

How important do you believe it to be that students’ have knowledge regarding coping skills they can use during difficult times in their lives?
- Very important
- Somewhat important
- Not important

How feasible do you believe it is that as a teacher, you can instruct students on these coping skills?
- Very feasible
- Somewhat feasible
- Not feasible

Describe your level of confidence you have in implementing a structured curriculum such as Strong Kids?
- Very confident
- Somewhat confident
- Not confident

How important is it that students experience fewer social, emotional, and behavioral problems?
- Very important
- Somewhat important
- Not important

How feasible do you believe it is that as a teacher, you can help address or provide intervention instruction in an effort to help students experience fewer emotional problems?
- Very feasible
- Somewhat feasible
- Not feasible

Acceptability of Procedures

How acceptable did you find the following procedures:
Having scripted lessons
- Not acceptable
- Somewhat acceptable
- Very acceptable
Having materials, including transparencies, in-class handouts, homework handouts, included in the curriculum
  □ Not acceptable
  □ Somewhat acceptable
  □ Very acceptable

The amount of time it took to prepare for each lesson
  □ Not acceptable
  □ Somewhat acceptable
  □ Very acceptable

The amount of time it took to implement each lesson
  □ Not acceptable
  □ Somewhat acceptable
  □ Very acceptable

The amount of time it took to teach all lessons
  □ Not acceptable
  □ Somewhat acceptable
  □ Very acceptable

The number of lessons in the curriculum
  □ Not acceptable
  □ Somewhat acceptable
  □ Very acceptable

Level of student interest in the lessons
  □ Not acceptable
  □ Somewhat acceptable
  □ Very acceptable

Pre-service training
  □ Not acceptable
  □ Somewhat acceptable
  □ Very acceptable

Satisfaction with results
How satisfied were you with the knowledge that students’ demonstrated during the course of implementing the program?
  □ Not satisfied
  □ Somewhat satisfied
  □ Very satisfied

How satisfied were you with the problem-solving skills that students’ demonstrated during the course of implementing the program?
  □ Not satisfied
  □ Somewhat satisfied
□ Very satisfied

How satisfied were you with students’ overall demonstration of positive emotion during the course of implementing the program?
□ Not satisfied
□ Somewhat satisfied
□ Very satisfied

Feasibility, importance, and confidence

How feasible is it to implement *Strong Kids* in your classroom?
□ Very feasible
□ Somewhat feasible
□ Not feasible

How important is it to implement *Strong Kids*?
□ Very important
□ Somewhat important
□ Not important

How feasible is it for you to devote 15 minutes of prep time to preparing for *Strong Kids*?
□ Very feasible
□ Somewhat feasible
□ Not feasible

How important is it for you to devote 15 minutes of prep time to preparing for *Strong Kids*?
□ Very important
□ Somewhat important
□ Not important

How confident did you feel in implementing the curriculum?
□ Not confident
□ Somewhat confident
□ Very confident

Are there any problems you encountered in implementing *Strong Kids* in your SLC classroom?
________________________________________________________________________________________
________________________________________________________________________________________
________________________________________________________________________________________

What modifications, if any, did you need to make to the lessons in order to use *Strong Kids* with your students?
What accommodations, if any, did you need to make for individual students due to their disability in order to use *Strong Kids*?

Were there any aspects of *Strong Kids* and the implementation thereof that you particularly liked or disliked in comparison to other social emotional learning programs or social skills curricula?

Do you plan to use *Strong Kids* in your SLC classroom again? If “No,” please explain why:
APPENDIX D

OBSERVATION CHECKLIST
Fidelity Check
Lesson 4: Dealing with Anger

<table>
<thead>
<tr>
<th>Lesson Components</th>
<th>Circle One</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>I. Review:</strong></td>
<td></td>
</tr>
<tr>
<td>1. Reviews at least 1 topic from a previous lesson.</td>
<td>Yes No</td>
</tr>
<tr>
<td><strong>II. Introduction/Name and Define Anger and Aggression:</strong></td>
<td></td>
</tr>
<tr>
<td>2. Identifies purpose of lesson is to discuss anger and how to deal with anger appropriately.</td>
<td>Yes No</td>
</tr>
<tr>
<td>3. Uses Supplement 4.1 as an overhead and/or handout.</td>
<td>Yes No</td>
</tr>
<tr>
<td>4. Reviews all 5 definitions on Supplement 4.1.</td>
<td>Yes No</td>
</tr>
<tr>
<td>5. Conveys idea that aggression is an inappropriate/negative way to deal with or express anger.</td>
<td>Yes No</td>
</tr>
<tr>
<td>6. Conveys idea that anger does not have to lead to aggression and that there are better ways to express/manage your anger.</td>
<td>Yes No</td>
</tr>
<tr>
<td><strong>III. Introduce the Anger Model and Definitions/Integrate and Illustrate Anger Model</strong></td>
<td></td>
</tr>
<tr>
<td>7. Uses Supplement 4.2 as an overhead and/or handout.</td>
<td>Yes No</td>
</tr>
<tr>
<td>8. Defines/discusses all 6 components of the Anger Model.</td>
<td>Yes No</td>
</tr>
<tr>
<td>9. Uses Supplement 4.3 as an overhead and/or handout.</td>
<td>Yes No</td>
</tr>
<tr>
<td>10. Reads/discusses each component of the Anger Model from Supplement 4.3.</td>
<td>Yes No</td>
</tr>
<tr>
<td><strong>IV. Introduce Anger Control Skills</strong></td>
<td></td>
</tr>
<tr>
<td>11. Uses Supplement 4.4 as an overhead and/or handout.</td>
<td>Yes No</td>
</tr>
<tr>
<td>12. Discusses 4 ways of coping with anger from Supplement 4.4.</td>
<td>Yes No</td>
</tr>
<tr>
<td><strong>V. Application of Anger Control Skills</strong></td>
<td></td>
</tr>
<tr>
<td>13. Passes out Supplement 4.5 to students.</td>
<td>Yes No</td>
</tr>
<tr>
<td>14. Reads the negative example from Supplement 4.5 and asks at least 1 question to generate some discussion about the example.</td>
<td>Yes No</td>
</tr>
<tr>
<td>15. Reads the positive example from Supplement 4.5 and asks at least 1 question to generate some discussion about the example.</td>
<td>Yes No</td>
</tr>
<tr>
<td><strong>VI. Closure/Homework Handout</strong></td>
<td></td>
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<tr>
<td>16. Passes out Supplement 4.6.</td>
<td>Yes No</td>
</tr>
<tr>
<td>17. Reads/explains directions for homework to students.</td>
<td>Yes No</td>
</tr>
</tbody>
</table>

Totals: ___/17 ___/17

General Notes/Observations (please note briefly the quality of implementation and any components that may have been "partially" implemented):

Start time Day 1: ______  Start time Day 2: ______
Stop time Day 1: ______  Stop time Day 2: ______
January 18, 2008

Dear Teacher:

Your district has agreed to participate in a research study on a social-emotional learning and resiliency curriculum conducted by Nicole Nakayama, a doctoral student in the School Psychology Program at the University of Oregon, supervised by Ken Merrell, Ph.D., Co-Director of the School Psychology Program. Resiliency is the capacity to bounce back when presented with life-stressors, and a child’s possession of resiliency characteristics is related to positive life-outcomes.

The study will investigate treatment outcomes when Strong Kids is implemented in self-contained special education classrooms. Outcomes will be based on how students respond to a school-based curriculum that teaches skills such as problem-solving, positive-thinking, goal-setting, and anger-management. The study will also qualitatively investigate teachers’ perceptions and experiences in participation of this study to better enhance the utility of Strong Kids. You were selected as a possible participant in this study because the Special Services Facilitator of [Redacted] School District provided your name as someone who might be interested in participating in the study.

Your district has asked you to participate in a 2-4 hour in-service teacher training on Strong Kids. Before beginning implementation of the curriculum, you will be asked on your comfort level in implementation. If you are not yet comfortable in implementation, additional support and training will be provided. Then, class-time will be scheduled to deliver the curriculum to all students in your classroom. Consent forms will be provided to parents to gain permission for their students to participate in the pre/post assessments. Some time (10-15 minutes per student), beyond regular work duties, will be required for the research activities. You will be asked to complete a behavior rating scale for each of your students at each of the assessment periods.
The time required to teach the curriculum will be approximately 45 minutes per lesson for 12 weeks (1 lesson per week). The Strong Kids lessons will be presented to the students as outlined in the curriculum. Modifications may be made to example situations or scenarios that may be more appropriate for your students. For the purposes of the research, you will be asked to assess students two times prior to beginning the curriculum and at the end of the 12-week course. The assessment will consist of three questionnaires that the students fill out themselves. The questionnaires ask simple questions about their feelings about themselves, their relationships, and their abilities and would take approximately 30-45 minutes to complete. The scores from these questionnaires will be used to determine the curriculum’s impact on students’ knowledge of resilience, and on their resilience skills. The three assessments include: the Strong Kids Knowledge Test, the Strong Kids Symptoms Test, and the Social Skills Rating System Student Form. If you are not already familiar with these measures, you will be provided with training to give these measures. You will be asked to complete a behavior rating scale, the Social Skills Rating System Teacher Form, for each student at each assessment period. This activity should take approximately 10-15 minutes per student. As part of this study a university researcher will also observe you during instruction time of the lessons. Finally, you will be asked to complete a survey at the end of the program relating to your experiences implementing Strong Kids. Your school will not provide any monetary compensation for your involvement on this project. You will be provided with a gift card from the primary researcher at completion of Strong Kids. As well, the primary researcher will provide a class pizza/popcorn party for your students at completion of Strong Kids.

The questionnaires that you will be asked to administer to students and the observations during your lesson implementation and the teacher interview are of minimal psychological risk. Responding to questions regarding feelings could possibly be unpleasant or mildly upsetting to students. The principal investigator will monitor this procedure and will respond as appropriately. It may be uncomfortable for you to have a researcher come into your classroom and observe you implementing the lessons. The presence of an observer in the classroom and responding to general program implementation could possibly be unpleasant. The principal investigator is trained to monitor these situations closely and respond as appropriate.

To maintain your anonymity, any written information that is obtained in connection with this study will be securely coded and only demographic information, such as gender, years of teaching, and subject area taught will be attached to the codes.

Participation of districts, schools, teachers, and students is voluntary. Your decision whether or not to participate will not affect your relationship with the University of Oregon, the Department of School Psychology, your school, or the school district. If you decide to participate, you are free to withdraw your consent and discontinue participation at any time without penalty. Information gathered from this study will not be shared with your school.
If you have any questions, please feel free to contact Nicole Nakayama at (541) 501-3257 or Dr. Ken Merrell at (541) 346-2414. If you have questions regarding your rights as a research participant, contact the Office of Human Subjects Compliance, University of Oregon, Eugene OR 97403, (541) 346-2510. You will be given a copy of this form to keep.

Your signature indicates that you have read and understand the information provided above, that you willingly agree to participate, that you may withdraw your consent at any time and discontinue participation without penalty, that you will receive a copy of this form, and that you are not waiving any legal claims, rights or remedies.

___________________________________________
Print Name and Title

___________________________________________
School/Grade(s)

___________________________________________
Signature and date
APPENDIX F

PARENT CONSENT FORM
Parent Consent Form

January 22, 2008

Dear Parent/Legal Guardian,

Your child’s district, [redacted], has volunteered to participate in a research study piloting the Strong Kids program in the special education classroom. Strong Kids was designed by the University of Oregon to build resiliency skills by teaching students how to handle typical stress and social situations in a positive manner. Resiliency skills are the skills that students use everyday to overcome minor problems in their environment. Since resiliency is the ability to bounce back, some of the skills covered in the Strong Kids program will be problem-solving, positive-thinking, goal-setting, and anger-management.¹ This program will begin in approximately _____.

This study is being conducted by Nicole Nakayama, M.S., a doctoral student at the University of Oregon and supervised by Dr. Ken Merrell, the Co-director of the School Psychology Program at the University of Oregon. Your child was selected as a possible volunteer because he/she will be receiving these lessons as part of the instruction in his/her SLC classroom. His/her teacher has been trained to present these lessons. The lessons will be presented in approximately 45-minute sessions once a week for twelve weeks during regularly scheduled class time. It is anticipated that students will learn social and emotional strategies to foster resiliency and prevent social, emotional, and behavioral problems.

As part of this study, pre and post questionnaires will be conducted to check on the effectiveness of the Strong Kids lessons. Your child will be given three short questionnaires before the lessons are presented at two different times (Pretest 1 and four weeks later, Pretest 2) and then again the same three short questionnaires at the completion of Lesson 12. Participation is voluntary. The questionnaires will take approximately 30-40 minutes to complete. The questionnaires are easy to complete and will ask questions about their feelings about themselves, their relationships, and their abilities. There is no grade attached to your child’s performance on the pre and post questionnaires or for their performance throughout the twelve lessons. Information gathered in this project will not be shared with your school. Your child’s name will not be associated with any of the information gathered.

The questionnaires that your child will be asked to complete present minimal psychological risk. Responding to questions regarding feelings could possibly be unpleasant or mildly upsetting to students. Your child’s teacher is trained to monitor

¹ To view the materials that will be presented to your child or to learn more about the curriculum prior to making a decision to participate please log on to [http://orp.uoregon.edu](http://orp.uoregon.edu) or, view a copy of the curriculum available in the school’s main office.


these situations closely and to anticipate concerns that may be unique to his or her students. The researcher will also be monitoring these procedures.

To respect your child’s privacy, any written information will be given a code and will not be attached to his or her name. All of the coded information will be kept at the University of Oregon, and only general information like age, grade, gender, and ethnicity (if provided) will be attached to the code.

Your decision whether or not to participate will not affect your relationship with your child’s district, school, teacher, or with the University of Oregon. If you decide that your child will not participate in the pre and post questionnaires, a supervised and structured activity will be provided for your child. Because the questionnaires will take 30-40 minutes to complete, the activity will most likely be a study session or library time. If you decide to participate, you may still withdraw your consent and discontinue your child’s participation at any time without penalty. At the completion of the Strong Kids program, your child’s classroom will receive a pizza or popcorn party.

If you have any questions, please feel free to contact Nicole Nakayama at (541) 501-3257 or Dr. Ken Merrell at (541) 346-2414. If you have questions regarding your or your child’s rights as a research participant, contact the Office of Human Subjects Compliance, University of Oregon, Eugene OR 97403, (541) 346-2510. You will be given a copy of this form to keep.

By signing this letter and having your child return it to the classroom teacher indicates that you have read and understood the information provided above, that you willingly agree that your child may participate in the pre and post questionnaires, that you know that you may withdraw your consent at any time and discontinue participation without penalty, that you will receive a copy of this form, and that you are not waiving any legal claims, rights or remedies.

Sincerely,

Nicole J. Nakayama, M.S.
University of Oregon
School Psychology Doctoral Candidate

____________________________________________
Child’s Name and Grade

____________________________________________
School
Parent/Guardian Print Name

Parent/Guardian Signature and Date
APPENDIX G

STUDENT ASSENT FORM
Student Assent Form

Dear Student:

I am a student at the University of Oregon. I am interested in helping kids stay strong even when upsetting or difficult things happen in your life. I am doing a project and I would like your help. Your teacher, ____, has agreed to help me with my project.

Your teacher is going to teach lessons on how to stay strong. The lessons are called *Strong Kids*. You will learn about some important skills, like the best thing to do when you feel angry or sad. ____ will give you a packet with questions to answer. We will do this at three different times: Today, right before you begin *Strong Kids* and at the very end of the unit. The questions will be the same each time. It should take 10-15 minutes to answer each set of questions. The packet will help us find out how much you know about what makes you feel strong. By answering the questions, you will help us to understand how well *Strong Kids* helped you learn skills to stay strong.

We don’t think that the questions in the packet will bother you. Some of the questions ask you about your feelings and what you would do at certain times, such as what to do if you are angry. ____ will make sure that these examples don’t bring up any bad feelings for you. ____ will help you to remember that the examples are not real. We can help you with any bad feelings or problems that may come up anytime during completing the packet or in the lessons.

Your parents said it is okay for you to answer the questions if you want to. You do not have to answer the questions in the packet. You will not receive any money for answering the questions. If you decide not to answer the questions, you will not get into any trouble. If you decide that you want to answer the questions in the packet, just sign your name on the line below.

You can change your mind at any time if you no longer want to answer the questions. Just let the teacher or your parent know that you don’t want to be a part of the project. You will not get into trouble. Remember, that you will answer the questions when you are at school, and there is no grading involved. In fact, all of your answers will be kept a secret so that no one knows whose work it is. We will use a code name instead of your name and the code name will only tell us if you are a girl or a boy, and what grade you are in, and what age you are. For doing the *Strong Kids* lessons, your classroom will be getting a pizza/popcorn party at the end of the program.
If you have any questions about the project, ask your teacher or parents about it, or you can call me, Nicole Nakayama, at (541) 501-3257. You can also call my teacher, Ken Merrell at (541) 346-2414. You will get a copy of this letter to keep and take home.

Sincerely,

Nicole J. Nakayama, M.S.

I, _________________________________, have decided to take part in the packet of questions.
BIBLIOGRAPHY


