MANAGING ANXIETY THROUGH CHILDHOOD

SOCIAL-EMOTIONAL DEVELOPMENT

by

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Abstract

School professionals are implementing a universal social-emotional learning program for children in Kindergarten and Grade 1 (aged 4-6 years) in many schools across the province with training and funding provided by the government. The *Fun FRIENDS* (Barrett, 2007) program focuses on increasing social-emotional learning and promotes coping techniques and resiliency in order to prevent the onset of behavioural and emotional disorders (Pahl & Barrett, 2007). Preliminary results (Pahl & Barrett, 2007, 2010) have highlighted the effectiveness of the *Fun FRIENDS* program in reducing anxiety in children.

The present study utilized a quasi-experimental design to evaluate the effectiveness of the *Fun FRIENDS* program in reducing anxiety and promoting social-emotional competence among a sample of Kindergarten and Grade 1 students (N = 33) in a British Columbia school district. Results revealed a significant decrease in program participants' anxiety symptoms as rated by teachers when compared with those in the control group. Teachers also reported that children who participated in the program had significant increases in social-emotional skills, while those in the control group's skills remained the same. However, overall, children in the control group had significantly higher social-emotional skills, as rated by teachers. No significant results were found for parent rated levels of anxiety or social-emotional skills of children enrolled in either condition. Despite limitations of the study, the overall results demonstrate promising outcomes for students who participate in the *Fun FRIENDS* program.

Preface

The present study was designed and conducted by the graduate student, under the supervision and direction of Dr. Lynn D. Miller. The graduate student was responsible for the recruitment of the participating schools, supervision of data collection, data analysis, and the production of this manuscript. Prior to conducting the study, this research was approved by the participating school district and the UBC Behavioural Research Ethics Board (BREB). The UBC BREB certificate number is H13-00224.

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Dedication

"The secret of parenting is not in what a parent does but rather who the parent is to a child…

For a child well attached to us, we are her home base from which to venture into the world, her

retreat to fall back to, her fountainhead of inspiration."

(Gordon Neufeld & Gabor Maté, 2009)

This work is dedicated to my loving parents who have supported me unconditionally.

Chapter 1: Introduction

This chapter will present an overview of the present study, including its purpose, research question, and guiding hypotheses. First, a review of the research problem is presented.

1.1 Research Problem

1.1.1 Mental Health and Anxiety

The most frequently occurring form of mental health disturbances are internalizing disorders, including mood and anxiety problems (Chavira, Stein, Bailey, & Stein, 2004; Farrell & Barrett, 2007; Merikangas et al., 2010). Anxiety disorders, in particular, have an exceptionally high incidence rate and are the most common mental health concern of children (Merikangas et al., 2010). Epidemiological estimates indicate that approximately 25% of children are at risk of developing an anxiety disorder (Boyd, Kostanski, Gullone, Ollendick, & Shek, 2000; Merikangas et al., 2010). The high prevalence of childhood anxiety disorders, coupled with low reports of treatment, has underscored the need for further research into the topic (Chavira et al., 2004).

There is increasing interest in the concept of positive mental health, which emphasizes the need for strategies that support resilience and enhance protective factors, while increasing conditions that mitigate risk factors for diminished mental health (Canadian Institute for Health Information [CIHI], 2006). CIHI has cited the need for universal programs (i.e., including all children) and initiatives that incorporate a positive approach to mental health, rather than individual and illness-based models (CIHI, 2009).

In light of the increasing recognition of the prevalence of mental health disorders and their economic costs to society (Chavira et al., 2004; Insel, 2008; Schofield et al., 2011), the government has established public policy to address these concerns (British Columbia Ministry

of Health Services and Ministry of Children and Family Development, 2010). In 2003, the Ministry of Child and Family Development initiated a five-year *Child and Youth Mental Health Plan* (*CYMH Plan*) in British Columbia (B.C.), representing Canada's first child and youth mental health plan. As an integral component of this plan, the *FRIENDS for Life* (Barrett, 2004) program was implemented in schools across the province. A five-year review of the Plan indicated available supports and services for children's mental health were enhanced and that funding for these initiatives had more than doubled (British Columbia Ministry of Children and Family Development, 2008).

In 2010, the Ministries of Health Services and Child and Family Development built upon the initial *CYMH Plan* and released a ten-year plan, entitled *Healthy Minds, Healthy People*, to address substance use and mental health in B.C. across the lifespan. The plan presents a cross-government, multi-systems approach to transforming British Columbia's response to mental health and substance use over the next decade. In particular, the current plan places an emphasis on children and families, based on the recognition that mental health problems often originate in childhood (Bienvenu & Ginsburg, 2007). While recognizing the need for early intervention to mitigate the risk of future illness, and acknowledging that mental health problems can often be prevented (Hirshfeld-Becker et al., 2008; Rapee, Kennedy, Ingram, Edwards, & Sweeney, 2005), the ten-year plan aims to reduce the number of social-emotionally vulnerable young children (British Columbia Ministry of Health Services and Ministry of Children and Family Development, 2010).

With the acknowledgement that "healthy social and emotional development builds resilience and significantly decreases risk of mental illness and substance use problems later in life" (British Columbia Ministry of Health Services and Ministry of Children and Family

Development, 2010, p.7), the ministries hope to enhance programs and services that promote early childhood development. More specifically, one of the goals of the plan is to further enhance universal school-based, social and emotional learning (SEL) programs, such as *FRIENDS*, as an effective means of promoting social-emotional development and resilience in children. As a result, the *FRIENDS* program has been expanded to include younger children (Kindergarten and Grade 1 students) by implementing the *Fun FRIENDS* (Barrett, 2007) program. Within a period of one year, MCFD (2011) had trained over 600 teachers across the province to deliver the *Fun FRIENDS* program and has since been implementing the program throughout British Columbia.

1.1.2   Research Gaps

The increased governmental resource and fiscal expenditure on SEL programs, specifically *Fun FRIENDS*, within British Columbia has highlighted the need for outcome studies investigating program effectiveness in local populations. Despite evidence to support anxiety prevention in young children, few studies have investigated the effectiveness of universal SEL programs with this age population. Moreover, very few studies have investigated the *Fun FRIENDS* program, none of which are independent reviews. The present section will outline these research gaps.

1.1.2.1   Anxiety Prevention and Early Childhood

Early childhood refers to the ages between birth and eight years, and encompasses a time of rapid neurological advancement, setting the foundation for subsequent development (United Nations Educational, Scientific and Cultural Organization, n.d.). Several constructs are commonly used to identify more specific age ranges within this broader developmental period (Ford, Kozey, & Negreiros, 2012). Infancy refers to the period from birth to one year, while

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toddlerhood spans the ages between two and three years. The preschool years follow, beginning approximately at three years of age and terminating when children enter school, approximately five or six years. Kindergarten, Grade 1, and Grade 2, are defined by the primary years ranging from ages five/six through to age eight. The general terms early childhood and young children will be used throughout the discussion of the relevant research; however, primary-aged children (i.e., ages 5-8) are the focus of the present study.

In the past decade, researchers have acknowledged that clinical anxiety symptoms can begin to manifest in early childhood (Eley et al., 2003; Spence, Rapee, McDonald, & Ingram, 2001; Sterba, Egger, & Angold, 2007). As an effective means to alleviate the development of anxiety disorders, prevention literature has highlighted the need for early prevention and intervention efforts (Bienvenu & Ginsburg, 2007). Considering that most anxiety disorders have an early onset, young childhood may represent an ideal stage to introduce prevention efforts (Bienvenu & Ginsburg, 2007; Rapee et al., 2005). Through the development of anxiety-management skills and coping skills, such prevention programs may mitigate the onset of later mental health problems (Hirshfeld-Becker et al., 2008).

In light of the bourgeoning research on anxiety prevention in early childhood, there is an increasing demand for research evaluating the effectiveness of prevention programs targeting young children (Pahl & Barrett, 2010). Currently, there are few randomized controlled trials investigating the efficacy of universal, school-based interventions with primary-aged children (Pahl, Barrett, & Gullo, 2012), specifically examining anxiety symptoms. A research study that addresses the effectiveness of a program in reducing anxiety symptoms and bolstering social-emotional competence may provide empirical support for the *Fun FRIENDS* program. Such research-based evidence may provide support for its promotion and widespread implementation.

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1.1.2.2 *Fun FRIENDS*

The *Fun FRIENDS* program is a "developmentally tailored, downward extension of the pre-existing, evidence-based *FRIENDS for Life* program for children and youth" (Pahl & Barrett, 2007, p. 81). The program aims to increase social-emotional competence in primary-aged children through teaching children, parents, and teachers, cognitive-behavioural strategies to regulate emotions, build relationships, and overcome adversity.

Despite a large number of evidence-based studies supporting the effectiveness of the *FRIENDS for Life* program in increasing social-emotional competence (Barrett, Farrell, Ollendick, & Dadds, 2006; Barrett & Turner, 2000; Lock & Barrett, 2003; Lowry-Webster, Barrett, & Lock, 2003; Rose, Miller, & Martinez, 2009), empirical support for the *Fun FRIENDS* program is lacking (Pahl & Barrett, 2010). Previous outcome studies have evaluated the program's effectiveness in reducing anxiety and behavioural inhibition, and enhancing social-emotional strength (Pahl & Barrett, 2007; 2010); however, these studies are preliminary and there is a need for further research replicating the existing results using randomized controlled trials. Moreover, while one of these studies conducted a randomized controlled trial (Pahl & Barrett, 2010), the other provided little methodological information and lacked a control group (Pahl & Barrett, 2007). Independent reviews of the program have not been identified at this time: the primary author of the program has participated in all known research investigating the *Fun FRIENDS* program. If educational policy initiatives and government funding is to continue supporting the implementation of *Fun FRIENDS* throughout the province, independent empirical outcome studies evaluating the program's effectiveness within a Canadian context are needed.

1.1.3 Overview of the Research Problem

As government ministries allocate increased resources and expenditure to the implementation of *Fun FRIENDS* within the province, there is a growing demand for empirical research supporting the efficacy and effectiveness of this SEL program. Based on the increasing body of evidence that SEL programs are effective in building resiliency and reducing emotional distress (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011), more studies that span different age ranges, specifically in younger populations are needed to assess the effectiveness of evidence-based anxiety prevention programs.

1.2 Purpose of Study

The present research study will examine the effectiveness of the *Fun FRIENDS* program in reducing anxiety and building social-emotional skills in primary-aged children using a quasi-experimental design. The *Fun FRIENDS* program has demonstrated preliminary outcomes in reducing anxiety symptoms in young children (Pahl & Barrett, 2007; 2010). It is anticipated that the results of this project will build upon previous research and support the initial results of the program's effectiveness in reducing anxiety while building resiliency and fostering social-emotional development in young children. Results from this study may contribute to the growing empirical evidence regarding the effectiveness of the program, as implemented within a Canadian context. Participants will include Kindergarten and Grade 1 students from four schools in an urban B.C. school district.

1.3 Research Question and Hypotheses

This research will address what effect the *Fun FRIENDS* program has on primary-aged children's anxiety symptoms and social emotional skill development, as reported by parents and teachers pre- and post-intervention.

The following hypotheses guide this research:

1. Children who participate in the *Fun FRIENDS* program will have statistically lower scores on a measure of anxiety post-program implementation (Time 2) than those who do not participate in the program.

2. Children who participate in the *Fun FRIENDS* program will have statistically higher scores on a measure of social-emotional skill development post-program implementation (Time 2) than those who do not participate in the program.

Chapter 2: Review of the Literature

This chapter will present an overview of social and emotional learning (SEL) and research-based evidence regarding the effectiveness of SEL programs, with emphasis on early anxiety prevention programs. An introduction to the current approach to child and youth mental-health initiatives is presented.

2.1 Prevention

In the last two decades, there has been a shift away from a treatment-oriented perspective of mental health concerns toward a preventive and early intervention approach focused on children's and adolescents' well-being (Greenberg et al., 1999). As a proactive means to alleviating symptoms of anxiety, Connolly and Bernstein (2007) suggest early intervention and prevention as best practice in the treatment of child and adolescent anxiety disorders. In their recent review of the prevention literature, Bienvenu and Ginsburg (2007) posit that prevention efforts are needed early in life in order to decrease successfully the burden of anxiety disorders.

With recent advances in the field of mental health, top researchers have begun to recognize the complexity of the development of mental health disorders and the variety of methods in which interventions can be implemented (Rapee, 2008). Thus, the mental health literature now categorizes interventions along a continuum, ranging from prevention efforts to post-treatment care (Mrazek & Haggerty, 1994). Through a cost-benefit analysis, the prevention end of the spectrum is qualified in specific terms: namely, an individual's risk for developing a given disorder is weighted against the costs and risks associated with the intervention (Lau & Rapee, 2011). Three forms of prevention interventions are discussed: universal, selective, and indicated. From a universal perspective, interventions are implemented without regard to individual risk, across an entire population. In contrast, selective interventions target individuals

with known risk factors for a specific disorder, while indicated interventions target individuals exhibiting early indicators or symptoms of any given disorder (Rapee, 2008).

Research suggests that preventive interventions are particularly successful when implemented at an early age (between the ages of three and six years) to children exhibiting early signs of anxiety (Rapee et al., 2005). In a randomized controlled trial, Rapee and colleagues (2005) investigated the effectiveness of an early intervention program in preventing anxiety among preschool children. Participants consisted of inhibited children (as rated by parents) from 95 preschools in an urban Australian city (N = 146; mean age of 46.8 months). Parents of participating children were randomly assigned to a parent-education program or a control condition. The results were described in terms of standardized regression weights, with children whose parents were in the education condition showing significantly fewer anxiety diagnoses at a 12-month follow-up when compared to the control group (standardized path coefficient = - .18, critical ratio = -2.06, p = .039). Based on these results, Rapee and colleagues (2005) posit that early childhood represents an ideal age for prevention and early intervention efforts.

In a case study, Hirshfeld-Becker and colleagues (2008) investigated the use of adapting cognitive-behavioural protocols for treating anxiety in younger children (aged 4 to 7). Children with identified anxiety disorders (N = 9; mean age = 5.8; SD = 1.0), and their parents, were invited to partake in a newly developed cognitive-behavioural program targeting younger children. Child participants' anxiety was measured through diagnostic interviews conducted with parents at three time points: baseline, post-program, and two-year follow-up. When compared to baseline, findings revealed that participants had fewer anxiety diagnoses and improved coping ability following the program and at two-year follow-up (Hirshfeld-Becker et al., 2008). Although a randomized controlled trial was not used, this case study provides insight into the

potential benefits of using cognitive-behavioural therapy in the treatment and prevention of anxiety amongst younger children. It appears that teaching youngsters early adaptation skills and providing them with the opportunity to learn how to manage effectively their anxiety may decrease the impact of anxiety on academic and social success, while mitigating the onset of anxiety disorders (Hirshfeld-Becker et al., 2008; Rapee et al., 2005).

2.2   Social and Emotional Learning Programs

Educators acknowledge that more than academic competence is required to be successful in life, and a focus on social-emotional education, in addition to academic learning in schools is necessary (Hymel, Schonert-Reichl, & Miller, 2006). Currently, there is an increasing body of evidence showing the efficacy of social-emotional programs in building resiliency and preventing later psychopathology within pediatric populations (Durlak & Weissberg, 2011). Children who are socially and emotionally well adjusted possess the communicative and social abilities to cultivate and establish relationships, which is a necessary component for success in both academic and non-academic environments (Durlak & Weissberg, 2011; Mendez, McDermott, & Fantuzzo, 2002; Weissberg, Payton, O'Brien, & Munro, 2007). Social-emotional competence in young children has a protective value: it acts as a buffer to stressors, aids in the prevention of behavioural and emotional issues, and decreases the likelihood of pathology (Garmezy, 1991).

Social and emotional learning is a process through which children and adults are taught fundamental skills for effective living (Zins & Elias, 2006). Through this process, individuals gain the ability to establish relationships, recognize and manage emotions, and effectively solve problems. The Collaborative for Academic, Social, and Emotional Learning (CASEL; 2003) is an organization that provides leadership in the advancement of research and practice of school-

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based SEL. CASEL (2003) has identified five primary social and emotional competencies that children are expected to develop: self-awareness, social awareness, responsible decision-making, relationship skills, and self-management (see Table 2.1). More specifically, CASEL (2003) describes SEL as the process of developing and applying skills to identify and monitor emotions; fostering care and concern for others; making appropriate and responsible decisions; establishing positive relationships; and handling difficult situations effectively. Individuals develop these skills through observing, practicing, and applying SEL skills to everyday activities and tasks. As children experience increasingly complex situations (in terms of autonomy, social relationships, academics, and societal demands), presumably they begin to enhance and integrate their social-emotional skills into their individualized and ever-changing persona (Zins & Elias, 2006).

Table 2.1 Core Social-Emotional Competencies Outlined by CASEL

Social-Emotional Competency	Skills
Self-awareness	Recognizing one's emotions, values, strengths, and limitations
Social awareness	Being able to appreciate other perspectives, show empathy, and recognize available resources
Responsible decision-making	Making decisions based on consideration of ethical and social norms, and likely consequences and contributions
Relationship skills	Initiating and maintaining positive relationships, dealing with conflict effectively, cooperating
Self-management	Managing one's emotions and behaviours in a way that is conducive to achieving one's goals

Note. Source www.casel.org.

Social-emotional competence in young children has a protective value. It acts as a buffer against stressors, aids in the prevention of behavioural and emotional issues, and decreases the likelihood of pathology (Garmezy, 1991). Research has shown that students with social and emotional competence are less likely to display violent, aggressive and depressive behaviours

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(Poulou, 2005). Furthermore, children with social-emotional skills are more resilient to a myriad of factors that could put them at risk in developing problems with drugs, gangs, suicide, teen pregnancy and psychopathology (Elias et al., 1997). Considering the link between social and emotional development and externalizing and internalizing problems, SEL is an important factor in building resiliency in children and protecting them from later problems (Durlak et al., 2011; Durlak & Weissberg, 2011).

The benefits of social-emotional development are far reaching. In addition to prevention, SEL promotes individual achievement, in conjunction with prosocial attitudes that contribute to the wellbeing of the individual and society (Durlak et al., 2011; Durlak & Weissberg, 2011). Children who are socially and emotionally well adjusted communicate well, perform better academically, have increased confidence, and good interpersonal relationships (National Research Council and Institutes of Medicine, 2000). As research has shown, childhood peer rejection greatly impacts social, emotional, and future life outcomes (McDougall, Hymel, Vaillancourt, & Mercer, 2001). Socially competent children possess the social and communicative abilities to establish and cultivate relationships with adults and peers, which are necessary in order to be successful in both academic and non-academic environments (Mendez et al., 2002).

The development of social-emotional skills is clearly an important challenge for children entering the complex social environment of school. Interventions aimed at increasing social-emotional wellbeing and competence are especially useful during early childhood (Pahl & Barrett, 2007). Masten and Coatsworth (1998) also provide evidence that social-emotional development is particularly important and relevant during the early years. In order to be prepared for school, children are in need of social-emotional development (Klein, 2002). Those children

with limited social-emotional skills often demonstrate impaired emotional, social, and academic functioning, which further increases the risks of mental illness (Aviles, Anderson, & Davila, 2006). Early intervention and development of social-emotional skills in young children is necessary in order to increase resiliency and wellbeing, while preventing the future onset of psychopathologies.

Enhancing student social and emotional development is an essential component of school-based learning. It is apparent that effective education must extend beyond a strict focus on academic achievement and should include teaching children social and emotional skills in order to promote academic achievement, health, and wellbeing (Durlak et al., 2011; Velsor, 2009). If children are not armed with a proper arsenal of social-emotional skills (such as, communication, reflection, self-regulation, and self-awareness) they may never fully actualize their social, or other, potential. In light of the aforementioned research confirming the benefits of SEL, fostering social-emotional development in early childhood is important for future wellbeing and success (Zins & Elias, 2006).

2.2.1   Evaluation of Social and Emotional Learning Programs

In a landmark meta-analysis evaluating the outcomes of 213 school-based SEL programs (N = 270,034 children), Durlak and colleagues (2011) found empirical evidence to support the positive impact of universal, evidenced-based SEL programs. The review examined the effects of SEL programs across multiple outcomes: positive social behaviour, social and emotional skillsconduct problems, attitudes towards self and others, emotional distress, and academic performance. All outcomes had significant mean effect sizes (range = .22 to .57) and results suggest that, when compared to controls, students had increased SEL skills, positive behaviour, and attitudes following intervention, in addition to decreased emotional distress and conduct

problems. Moreover, results from a smaller subset of studies including fewer children ($N =$ 135,396) investigating the effect of SEL programs on academic achievement had mean effect size of .27, which was translated into an average 11-percentile gain in academic performance. Empirical support from large meta-analytic studies such as this, make it difficult to ignore the positive effects of SEL programs. The authors conclude, "policy makers, educators, and the public can contribute to healthy development of children by supporting the incorporation of evidence-based SEL programming into standard educational practice" (Durlak et al., 2011, p. 405).

Despite a large number of empirical studies evaluating the effectiveness of SEL programs, few have examined the long-term effects of such programs. In a seminal longitudinal study, researchers found that a universal, school-based intervention led to positive outcomes 15 years later (Hawkins, Kosterman, Catalano, Hill, & Abbott, 2008). Elementary school children in 18 urban schools ($N = 598$) participated in the Seattle Social Development Project (SSDP), an SEL program focused on improving children's social competence, parenting practices, and classroom management and instruction (Hawkins et al., 2008). Compared to controls, results suggest that participants had significantly higher economic status, greater educational achievement, better sexual health, and more robust mental health at age 27. These intervention effects indicate that universal SEL programs implemented in elementary grades "can positively affect attainment, functioning, and mental health in young adulthood" (Hawkins et al., 2008, p. 1140).

Based on the increasing recognition of the widespread benefits gained from social and emotional development, the B.C. Ministry of Education has incorporated SEL into the school-based curriculum, making it a mandatory component of every child's education (British

Columbia Ministry of Health Services and Ministry of Children and Family Development, 2010).

In response to the benefits and demand for social-emotional development, researchers have

begun developing a variety of SEL programs that aim to teach children valuable social skills,

emotional awareness and management, and decision-making skills (CASEL, 2003). With a

myriad of SEL programs available, researchers are challenged to conduct empirical studies

evaluating the effectiveness of such programs.

2.2.2   *Fun FRIENDS*

Fun FRIENDS (Barrett, 2007a; Barrett, 2007b) is a universal intervention program for

children in Kindergarten and Grade 1 (aged 4-7 years). The program includes activities that

promote social-emotional development, coping techniques and resiliency, with the stated

intention of preventing the onset of emotional and behavioural disorders, including anxiety (Pahl

& Barrett, 2007). Based on cognitive behavioural skills, the program has the aim of promoting

wellness and providing students and families with the skills needed to overcome challenges and

adversity. Specifically, children are taught "to be brave, to try new things, to learn to relax, how

to be kind and empathic, how to make friends, and how to recognize positive helpful thoughts"

(Barrett, 2007a, p. 2), through various play-based learning activities over the course of 12

sessions.

Table 2.2 *Fun FRIENDS* Learning Components

	Session Learning Components
Session 1	**Getting Started** • Building a sense of identity (Who am I?) • Feeling scared is OK; we can all learn to be brave • Being brave = looking people in the eye, smiling, saying hello with a brave voice, trying your best, trying something for the first time, sharing, trying and then coming last and staying happy • Understanding that we all share similarities and differences • Learning social skills through games
Session 2	**F: Feelings** • Identifying feelings in self and others • Role-playing feelings • Normalizing all feelings • Making happy feelings grow
Session 3	**F: Feelings** • Paying attention to other people's feelings • Helping other people feel better (empathy training) • Recognizing other's feelings
Session 4	**R: Relax** • Paying attention to what your body is telling you • Breathing slowly/milkshake bubbles • Playing relaxation games
Session 5	**I: I can try!** • Choosing to make our unhelpful "RED" thoughts – STOP! • Choosing to make our helpful "GREEN" thoughts – GO!
Session 6	**I: I try!** • Changing unhelpful "RED" thoughts into "GREEN" thoughts • Throwing away "RED" thoughts can be so easy
Session 7	**E: Encourage** • Learning to do things one step at a time • Breaking hard things down into lots of little steps • Learning to be brave!
Session 8	**E: Encourage** • Learning to be friendly and make new friends • Being a good friend: smiling, sharing, helping, listening
Session 9	**N: Nurture** • Learning to reward ourselves when we've tried our best! • Learning how to plan a party, step-by-step
Session 10	**N: Nurture** • Being brave – our role models and their modeling, empowering, and identity forming influence in our lives • Helping others – our family, friends and teachers can help us become brave and we can help them too
Session 11	**D: Dare to be brave (practicing the *FRIENDS* skills)** • Helping each other: our family, friends and teachers can help us become brave and we can help them too. We can all help each other.
Session 12	**S: Stay Happy!** • Sharing happiness by spending special time doing fun things with friends and family.

Note. Source British Columbia Ministry of Children and Family Development (2011), and Pahl and Barrett (2007; 2010).

The five primary social and emotional competencies (CASEL, 2003) can be found in *Fun FRIENDS* lessons. These skills are targeted through the following program components: responsibility of self and others (independence, respect and care for others and environment); prosocial behaviour (able to share, respects others, recognizes feelings, empathetic); social skills (eye contact, tone of voice, facial expressions); self-regulation (management of emotions, adjustment to unique situations, and adaptation to change); and self-awareness and identity (see Table 2.3; Pahl & Barrett, 2007).

Table 2.3 Social-Emotional Learning Competencies Addressed Through Fun FRIENDS

Fun FRIENDS Objectives	**Core Social-Emotional Learning Competencies**				
	Self Awareness	Social Awareness	Responsible Decision-Making	Relationship Skills	Self-Management
Developing a sense of self	✓				✓
Social skills		✓		✓	
Self regulation	✓		✓		✓
Responsibility for self and others		✓	✓		✓
Prosocial behaviour		✓	✓	✓	

Note. Source British Columbia Ministry of Children and Family Development (2011) and Pahl and Barrett (2007).

As a school-based program, *Fun FRIENDS* can be applied to an entire classroom as an universal intervention program that teaches intervention skills with the aim of developing the skills needed to conquer adversity (Pahl & Barrett, 2007). The universal nature of this program offers the advantage of benefiting a wide range of children without the risk of stigmatization (Pahl & Barrett, 2007). Additionally, a program that targets all children can address the needs of

those who require intervention, but who may not be identified by supporting professionals (Pahl, Barrett, & Gullo, 2012).

The *Fun FRIENDS* program is grounded in two frameworks: resilience theory and cognitive-behaviour theory (CBT; Pahl & Barrett, 2007). The program incorporates a multi-systems approach to resiliency that focuses on the influences of interactions that occur between an individual and his or her contextual environments (Werner & Smith, 1982). The *Fun FRIENDS* program has been adapted to include parental participation and elements of community influence (Pahl & Barrett, 2007). Throughout the course of the program, parents are invited to information sessions to learn about skills developed in the program. A family activity workbook is also provided to parents to promote continuity of program skills in the home environment (Pahl & Barrett, 2007).

Research has also provided evidence for the effectiveness of CBT in reducing anxiety and distress in children and adolescents (Hirshfeld-Becker et al, 2008; Kendall, 1994). *Fun FRIENDS* incorporates cognitive-behavioural strategies through teaching children to use cognitive problem solving skills to address challenges they may face (Pahl & Barrett, 2007). In Session 5, for example, participants are taught to identify inner thoughts in terms of green, helpful, thoughts and red, unhelpful, thoughts. Participants are encouraged to change unhelpful red thoughts into green thoughts by generating helpful alternatives. Program goals are achieved by experiential learning through play-based activities, including the use of music, story telling, games, art, and dramatic role-playing (Pahl & Barrett, 2007).

2.2.2.1 Evaluation of *Fun FRIENDS*

Preliminary results have highlighted the effectiveness of the *Fun FRIENDS* program in reducing anxiety in young children; however, research is limited (Anticich, Barrett, Silvermanm,

Lacherez, & Gillies, 2013; Pahl & Barrett, 2007; 2010). Empirical analyses indicated that program participants (N = 70) had statistically significant decreases in parent ratings of participants' anxiety scores, $t(69)$ = 3.45, $p < .001$, following intervention (Pahl & Barrett, 2007). Although these results provide preliminary support for the effectiveness of the *Fun FRIENDS* program in reducing anxiety symptoms, specific details regarding the sample population and study procedure were not reported. No control condition was included, thus maturation effects threaten the validity of the results.

Pahl and Barrett (2010) found additional support for program implementation with empirical results showing positive student improvements post-intervention and at a 12-month follow-up. The sample consisted of 263 participants attending one of 16 classes in nine preschools in an urban city (mean age = 4.56; SD = .51). Once classes were matched based on gender, class size, and socioeconomic status, they were randomly assigned to the intervention or waitlist control group.

Teacher reports revealed significant decreases in behavioural inhibition from pre- to post-intervention in children that had participated in the *Fun FRIENDS* program when compared to those in the control group, $F(1,259)$ = 5.39, $p < .05$, partial η^2 = .02. Significant increases in participants' social-emotional competence were also reported by teachers when compared to those in the control group, $F(1,261)$ = 8.63, $p < .005$, partial η^2 = .03.

Results revealed that significant interaction effects at post-intervention were not found for completed parent measures. An inspection of mean scores did indicate that participants experienced decreases in anxiety symptoms from pre- to post-intervention based on parent reports. Similarly, parents reported participant decreases in behavioural inhibition and increases in social-emotional strengths; however, the results were not significant. The waitlist control

group received the program immediately post-intervention. Despite the lack of significant results immediately following intervention, parent reports in a 12-month follow-up condition indicated that participants had statistically significant decreases in anxiety symptoms [$F(2,58) = 4.53, p < .05$, partial $\eta^2 = .14$] and increases in social-emotional competence [$F(2,58) = 3.19, p < .05$, partial $\eta^2 = .10$] based on pre- post-intervention analyses. The waitlist control group did not participate in the follow-up condition.

While preliminary results are positive, there are several limitations to this study. At post-intervention and 12-month follow-up, many parents failed to complete the assessment measures resulting in a high proportion of attrition (approximately 40%). Due to ethical restrictions, the study lacked a comparison control group at the 12-month follow-up, making it difficult to rule out the possibility of naturally occurring maturation effects.

More recently, Anticich and colleagues (2013) examined program's effectiveness among a sample of children ($N = 488$) aged 4-7 (mean age = 5.42 years; $SD = .67$) attending 14 Catholic schools in Brisbane, Australia. The study utilized a randomized-controlled trial to evaluate the effectiveness of the program, as delivered in a universal classroom-based setting, in reducing anxiety and behavioural inhibition, and enhancing social-emotional skills among children. Participants were randomly assigned to one of three groups: intervention (*Fun FRIENDS*), active control [*You Can Do It* (Bernard, 2001) a universal SEL program] and waitlist control group. Parents completed measures of anxiety, behavioural inhibition, social-emotional competencies, and behavioural concerns; teachers completed a measure of social-emotional skills and behavioural concerns. Measures were completed at pre-, post-, and 12-month follow up.

Findings revealed that all three groups had significant social-emotional improvements, as rated by parents, at post-test and follow-up [$F(2,310) = 352.59, p < .001$ for *Fun FRIENDS*,

F(2,371.06) = 160.86, *p* < .001 for *You Can Do It* and *F*(2,258) = 31.21, *p* < .001 for waitlist

group]. After controlling for baseline differences, results indicate that *Fun FRIENDS* participants

experienced significantly larger improvements in social-emotional skills when compared to

children in the active control group (*p* < .001) and waitlist group (*p* = .007) at post-test. At

follow-up, intervention participants had improved significantly more than both groups (*p* < .001).

Analysis of teacher reports of social-emotional skills revealed that only participants in the *Fun*

FRIENDS program improved significantly from pre- to post-test [*F*(2,284) = 35.69, p < .001].

After controlling for baseline scores, participants in the intervention group improved

significantly more than those in the active control group and waitlist group at post-test and

follow-up (all p < .0001).

Analysis of parent reports of participants' behavioural inhibition revealed significant

improvements over time in both the intervention and active control groups at post-test and

follow-up [*F*(2,327.4) = 375.77, *p* < .001 for *Fun FRIENDS*, and *F*(2,384.69) = 106.84, *p* < .001

for *You Can Do It*]; while the waitlist group did not [*F*(2,260.68) = 3.23, *p* < .001]. After

controlling for baseline scores, both the intervention and active control groups had significant

improvements when compared to the waitlist group (both *p* < .001) at post-test and follow-up.

Moreover, at post-test and follow-up, *Fun FRIENDS* participants improved significantly more

than those in the *You Can Do It* group (both *p* < .001).

The study provides preliminary evidence to support the importance of universal

preventive interventions in early childhood. Compared with children in the waitlist control

group, children in the intervention and active control group demonstrated greater reduction of

symptoms and improvements in social-emotional competencies. While both the intervention and

the active control groups demonstrated significant improvements and gains, *Fun FRIENDS*

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participants experienced the greatest improvements at post-intervention and follow-up. These findings provide promising evidence to support the use of early intervention to reduce anxiety and increase social-emotional strength in young children, regardless of pre-interventional symptomatology.

Further investigation is clearly needed to build on the results of the *Fun FRIENDS* research by examining the effectiveness of the program in fostering psychological resilience and social-emotional development, in addition to reducing children's level of anxiety. Moreover, independent program evaluations are necessary at this time in a Canadian context.

2.3   Linking Social and Emotional Learning and Anxiety

Researchers acknowledge that the development of childhood anxiety is a function of risk and protective factors (including genetics, temperament, and environment) that interact in a complex manner (Barlow, 2000, 2002; Chorpita, 2001, 2002; Greenberg, Domitrovich, & Bumbarger, 2001; Vasey & Dadds, 2001). A review of the literature reveals that anxious children experience cognitive deficits and distortions that translate into heightened threat perception and decreased self-efficacy (Greenberg, Domitrovich, & Bumbarger, 2001). These children often fail to utilize effective coping skills to regulate their feelings of distress. In order to promote protective factors and buffer against risk factors, researchers have acknowledged that preventive anxiety interventions should target cognitive distortions, self-efficacy, and self-control (Brown, O'Keefe, Sanders, & Baker, 1986; Cicchetti & Toth, 1998; Greenberg, Domitrovich, & Bumbarger, 2001; Shure & Spivack, 1980).

Social-emotional learning programs that teach cognitive-behavioural strategies to develop effective coping skills and promote resiliency are an effective means of reducing the risk of

anxiety disorders. As an SEL program, *Fun FRIENDS* lends itself to the prevention of childhood anxiety by focusing on the following:

> …teaching children cognitive problem-solving skills for dealing with interpersonal challenges; recognising and dealing with body clues (i.e., physiological arousal) through breathing control and progressive muscle relaxation; cognitive restructuring (recognising and changing unhelpful red thoughts to helpful green thoughts); attention training (looking for the positive, happy aspects of a given situation); graded exposure to fears (creating coping step plans), and family and peer support. (Pahl & Barrett, 2007, p. 86)

While addressing all five of the previously mentioned SEL factors, the program utilizes cognitive-behavioural skills as a means to restructure maladaptive cognitions and promote effective coping strategies in an attempt to foster resiliency and mitigate the onset of psychopathology.

Chapter 3: Methodology

The current chapter reviews the study's methodology, including the following elements: ethical approval, participant recruitment and demographics, consent and compensation, study procedure, Fun FRIENDS program objectives, and measures used.

3.1 Overview

The effectiveness of the *Fun FRIENDS* program in reducing symptoms of anxiety and building social-emotional competence was evaluated using a quasi-experimental approach. Data were collected from teachers and parents of participants. The experimental group participated in the *Fun FRIENDS* program as delivered by their trained classroom teacher. This program is currently being implemented in school districts across B.C.

3.2 Ethical Approval and Recruitment

The school district gave research approval in March 2013 and the University of British Columbia Behavioural Research Ethics Board (BREB) granted ethical approval in April 2013. This research study is supported by the Ministry of Child and Family Development (MCFD). As a liaison, the MCFD manager of the *FRIENDS* program in B.C., provided access to training, identified participating schools implementing *Fun FRIENDS*, and encouraged schools to participate in the research component. The school district's director of instruction forwarded principal contact information for schools participating in the program. Principals were contacted directly via e-mail to recruit schools for the study. Two eligible teachers expressed interest in participating in the experimental condition and consented to participate in the study. A matched school was selected and two teachers volunteered to participate in the control condition of the study in a quasi-experimental design. Schools were matched based on public information

gathered from the Foundation Skills Assessment (FSA; 2012) including academic ranking, student enrollment, English language learners, and average parental income.

3.3 Participants

Participants included students in Kindergarten and Grade 1 (ages 5-7) from four classrooms in schools within an urban B.C. school district. Two classrooms from one school participated in the program as delivered by their classroom teachers, who were trained as *Fun FRIENDS* facilitators by the government program. Two classrooms in a matched school from the same district served as controls. Control group teachers were not trained facilitators. All four teachers consented to participate.

Parental consent forms were distributed to all students in all four classrooms. Of the 90 parent consent forms distributed, 34 parents consented to participation in the study, a response rate of 38%. Participants in the experimental group participated in the *Fun FRIENDS* program regardless of parental consent; however, data were not collected for these students (n = 19). At Time 2, the parent questionnaires from one control group participant were not returned; therefore, the participant's data at Time 1 was withdrawn from the study. Only participants with parent and teacher ratings at Time 1 and Time 2 were included in the analyses. The total sample of students included 33 participants: 19 experimental (58%) and 14 control (42%); 16 males (48%) and 17 females (52%); 18 in Kindergarten (55%) and 15 in Grade 1 (45%); 11 aged 5-years old (33%), 17 aged 6-years old (48%), and 5 aged 7-years old (15%). Mean age was 5.82 years (*SD* = .68).

3.4 Procedure

Upon agreeing to the research project, teachers were asked to complete a teacher consent form, outlining their role in the study (see Appendix A). Once classroom teacher consent was

acquired, teachers distributed parent consent forms to students. Parents/guardians were asked to complete a consent form for each participating child and child participation in the study was dependent on active parental consent (see Appendix B). A list of resources was provided along with consent forms for those seeking further information or support regarding mental health concerns (see Appendix C). Participants were not required to give assent, as they were not completing self-report measures. Instead, the researcher delivered a brief oral introduction to the research project using age-appropriate language during which time students were encouraged to ask questions and raise concerns (see Appendix D).

Children in the experimental group participated in the *Fun FRIENDS* program as delivered by their classroom teacher. Prior to program implementation, teachers in the experimental group were required to attend an accredited teacher-training workshop, which is provided free of charge by the MCFD. Students in the control group served as a comparison and did not receive the *Fun FRIENDS* program during the 2012-2013 school year, and these classroom teachers did not receive program training. Parents and teachers in all four classrooms were asked to complete measures at the same two requested time points. These time points were based on program implementation within the experimental group: prior to the commencement of the program (Time 1) and at the end of the program (Time 2), a span of 12 weeks. Teacher-report measures were delivered during a classroom visit at both time points. At this time, parent-report measures were also distributed and sent home with child participants in unsealed envelopes.

Time 1 data collection occurred in the first two weeks of April, prior to program implementation. Sealed envelopes containing parent consent forms and measures were collected from classroom teachers, along with completed teacher measures. At this time, the researcher delivered a brief introduction to the research to students in all four classrooms.

Fidelity checks in both experimental classrooms were used to ensure systematic implementation of the program, in accordance with the *Fun FRIENDS* protocol. Beginning in the second week of program implementation, both teachers in the experimental group received two scheduled emails sent 4 weeks apart. These emails addressed program delivery and schedule progress, and reviewed any concerns that teachers were experiencing. In order to confirm uniform and systematic program implementation across experimental groups and program facilitators, teachers were asked to complete a self-report leader checklist to address program outcomes and learning to ensure program fidelity.

Experimental classrooms completed program implementation in the third week of June, twelve weeks from the beginning of program instruction. Coincidental with the end of the program, parent and teacher measures were distributed for students who had obtained parental consent at Time 1. Time 2 data collection occurred in the final week of June and participants were compensated for their participation with a classroom pizza party. Teachers were compensated with a small denomination gift card at the conclusion of the research project.

A numeric system was used to protect participant identification, whereby each participant was assigned a number. In order to protect participant anonymity, a classroom participant roster and accompanying assigned numbers was created. Once data collection was complete, the roster was shredded and all completed measures were placed in a locked file cabinet at the University of British Columbia. Discussions of the results generated from this study withhold all identifying information to ensure participant confidentiality and will be shared with the participating school district upon request.

3.5 *Fun FRIENDS* **Program**

The *Fun FRIENDS* program is divided into 12 sessions and can be delivered in a classroom setting. The learning objectives (see Table 2.2) are taught through a variety of play-based activities per session, with acitivities ranging from five to ten minutes. Teachers are given comprehensive program manuals outlining each session, although the pace of delivery can be modified based on the specific needs of the children. While the structure and sequence of the content is a requirement, it is not necessary to adhere rigidly to a specific number of sessions and/or weeks of delivery. Teachers in the experimental group of this study often delivered sessions in several smaller lessons and activities, which spread across the course of the week. Both teachers completed the *Fun FRIENDS* program in a total of 11 weeks. The following is a brief overview of session components as outlined in the *Fun FRIENDS* manual (Barrett, 2007a) and by Pahl and Barrett (2010).

Session 1: Getting Started. Students develop self-identity through group introduction and name games. Social skills are emphasized and an introduction to the concept of 'being brave' is presented.

Session 2: My Feelings. Children develop an understanding of feelings. Goals include empathy building and emotional regulation through role-plays.

Session 3: Your Feelings – I Will Help! Students are taught to pay attention to feelings and learn to recognize other people's feelings.

Session 4: Our Bodies and Relaxation Games. Participants learn the physiological clues of anxiety (e.g., heart beat, butterflies in stomach) and are taught relaxation exercises to help them feel calmer.

Session 5: "Red" and "Green" Thoughts. Teachers introduce program cognitive strategies. Students learn to identify helpful (green) and unhelpful (red) thoughts through self-talk.

Session 6: Changing "Red" Thoughts into "Green" Thoughts. Participants learn how to identify red thoughts and change them into green thoughts.

Session 7: Doing Things One Step at a Time. Participants develop coping step plans and discuss how to gradually approach fears one step at a time.

Session 8: Steps To Being a Good Friend. Participants learn how to be friendly and make new friends. The teacher helps to facilitate a discussion of what it means to be a good friend (e.g., sharing, helping, listening and smiling).

Session 9: Giving Ourselves a Pat on the Back! Through planning a party, participants learn the importance of rewarding yourself for trying your best and being brave.

Session 10: Family, Schools, Neighbours and Friends. The importance of role models is discussed and participants learn that family, friends, and teachers can help participants become brave.

Session 11: Our Circle of Love and Friends. The importance of support teams is discussed. Participants learn how support teams can help them face challenges and identify who makes up their individual support teams.

Session 12: Dress-Up Party! Participants review all of the program skills and celebrate program completion with a party.

3.6 Measures

Using a multi-respondent method, several measures were used to assess anxiety levels and social-emotional competence among participants at both time points. Participant anxiety

levels were assessed using the *Preschool Anxiety Scale* (PAS; Spence et al., 2001), which was completed by parents and teachers. In order to assess participant's social-emotional competence, the *Strengths and Difficulties Questionnaire* (SDQ; Goodman, 1997) Prosocial subscale parent and teacher report measures were used. The scales were chosen based on their ability to measure perceived levels of anxiety and social-emotional competence. Teachers in the experimental group were asked to complete a *Fun FRIENDS* Fidelity Checklist throughout program implementation.

3.6.1   *Preschool Anxiety Scale* (PAS)

The *Preschool Anxiety Scale* (PAS) is a standardized, norm-referenced measure used to assess anxiety in young children through parent and teacher reports (Spence et al., 2001; see Appendix E and F). The PAS utilizes a five-point Likert-type scale whereby raters are asked to rank items according to how often the item is true for their child (0 = not true at all; 1 = seldom true; 2 = sometimes true; 3 = quite often true; 4 = very often true). The parent scale consists of 28 items. The scale consists of five anxiety subscales (Generalized Anxiety, Social Anxiety, Obsessive-Compulsive Disorder, Fears of Physical Injury, and Separation Anxiety) and provides an overall measure of anxiety in young children. A teacher version of the PAS was created based on the parent scale; however, it omits six items that were deemed to be behaviours that are not easily observable by teachers (Spence et al., 2001).

The PAS Total and subscale scores are calculated by summing relevant items, with parent Total raw scores ranging from 0-112 and teacher Total raw scores ranging from 0-88. Some example items include: "Has difficulty stopping him/herself form worrying" (Generalized Anxiety), "Is afraid of meeting or talking to unfamiliar people" (Social Anxiety), "Has to have things in exactly the right order or position to stop bad things from happening" (Obsessive-

Compulsive Disorder), "Worries that something bad will happen to his/her parents" (Separation Anxiety).

The PAS is easily administered in school and community settings, taking approximately 15 minutes to complete (Spence et al., 2001). Research on the PAS has found that it is a suitable measure that can be "used to evaluate change over time in response to treatment or prevention programs, and to identify children who are at risk of anxiety problems and who many benefit from early intervention" making it a good choice for use in this research study (Spence, n.d.). Parents and teachers completed the scale at Time 1 and Time 2 of the research project. For the purpose of this study, the parent and teacher PAS Total Scale scores were used as a measure of perceived anxiety levels in children.

3.6.1.1   PAS Psychometric Research

Research indicates relatively strong psychometric properties for the PAS parent version (Spence et al., 2001). The original article investigated anxiety symptoms among a community sample of 1,138 children, aged 2.5 to 6.5 years old. The researchers provided evidence for content validity confirming the five-factor structure, with all factors loading onto one higher-order factor of anxiety (Spence et al., 2001). Construct validity was demonstrated by comparing Total scale scores of the PAS with scores on the Internalizing scale of the Child Behavior Checklist (CBCL; Achenbach, 1991). Pearson product-moment correlations calculated for the parent ratings for the two scales were .68 (N = 472, p < .001) for mothers and .59 (N = 382, $p <$ .001) for fathers.

Based on Cohen's (1977) recommendations, internal consistency (Cronbach's alpha coeffiecient) values above 0.80 are generally considered good, and test-retest reliability correlations of .70 and above are considered acceptable. A study investigating the psychometric

properties of the PAS in 275 two- to six-year-old children shows excellent internal consistency for the parent Total score (Cronbach's alpha = .86; Broeren & Muris, 2008). Internal consistency for individual subscales ranged from acceptable to good, with Cronbach's alpha coefficient values placing between .59 and .81. Evidence for construct validity confirmed for the five-factor model initially identified by Spence and colleagues (2001).

Edwards (2007) presents additional support for the psychometric properties of the PAS. All subscales, non-inclusive of the Obsessive-Compulsive scale, had moderate to good internal consistency, with all Cronbach's alpha coefficient values above .70. Over a 12-month perior, test-retest reliability was moderate, with median adjusted correlations of .60.

Despite evidence to support relatively good psychometric properties, there are few studies investigating the reliability and validity of the PAS and a lack of concurrent and predictive evidence for validity. Although a teacher version of the PAS has been developed, normative data are only available for the parent version of the scale. No known studies have investigated the psychometric properties of the teacher version of the scale.

3.6.2 *Strengths and Difficulties Questionnaire* **(SDQ)**

The *Strengths and Difficulties Questionnaire* (SDQ) is a brief measure of both problem behaviour and competencies in children and youth aged 3 to 16, with multi-informant versions (Goodman, 1997). Raters are asked to rank items using a three-point, Likert-type scale according to how true they relate to a child's behaviour over the last six months (0 = not true; 1 = somewhat true; 2 = certainly true). This research study used parent and teacher versions of the SDQ for primary school-aged children, aged 4-10 (see Appendix G).

The measure consists of 25 items distributed equally across five scales: four that assess negative behaviours (Emotional Symptoms, Conduct Problems, Hyperactivity-Inattention, and

Peer Problems) and one that assesses positive behaviours (Prosocial). In addition to individual scale scores, the SDQ provides a Total Difficulties score, which consists of all negative behaviour scale scores (i.e. non-inclusive of the Prosocial scale) and reflects the amount of psychosocial problems that a child shows. Furthermore, the SDQ provides a Prosocial scale reflecting a child's level of prosocial competencies. Research provides evidence for its sensitivity to treatment effects, making it a good selection for this study due to its effectiveness as a treatment-outcome measure. Example items include: "Many worries, often seems worried" (Emotional Symptoms), "Often fights with other children or bullies them" (Conduct Problems), "Constantly fidgeting or squirming" (Hyperactivity-Inattention), "Rather solitary, tends to play alone" (Peer Problems), "Shares readily with other children" (Prosocial).

Parents and teachers completed the measure at Time 1 and Time 2 of the study. Prosocial scale scores from the SDQ were used in the data analysis for this study. The Prosocial scale includes five questions with raw scores ranging from 0-10. As a measure of prosocial competencies, the scale provides a comprehensive overview of how considerate, caring, sharing, kind, and helpful a given child is. These characteristics are closely aligned with the five primary social and emotional competencies outlined by CASEL (2003). As presented in Table 3.1, aside from self-awareness, the Prosocial scale addresses the social and emotional core competencies outline by CASEL (2003). The SDQ Prosocial scale has been widely used as a research tool to investigate social-emotional skills in school-aged children (Edwards & Bromfield, 2009; 2010; Goodman & Goodman, 2009; White, Connelly, Thompson, & Wilson, 2013). The four scales that compromise the SDQ Total Difficulties score were not used for data analysis in this study.

Table 3.1 Social-Emotional Competencies Measured by the SDQ Prosocial Scale

SDQ Prosocial Scale	Social-Emotional Learning Competencies				
	Self-Awareness	Social Awareness	Responsible Decision-Making	Relationship Skills	Self-Management
Helpful		✓	✓	✓	
Caring		✓			
Kind				✓	✓
Considerate		✓	✓		✓
Sharing		✓		✓	

Note. SDQ = *Strengths and Difficulties Questionnaire* – Parent/Teacher Report.

3.6.2.1   SDQ Psychometric Research

A recent meta-analysis including 48 peer-reviewed studies (N = 131,223, ages 4-12) regarding the reliability and validity of the parent and teacher versions of the SDQ, determined that the measure shows strong psychometric properties (Stone, Otten, Engels, Vermulst, & Janssens, 2010). Reliability estimates showed higher internal consistency for teacher ratings, with alpha coefficient scores ranging from .70 to .83 (teacher ratings) and .53 to .80 (parent ratings) across subscales. Results suggest acceptable internal consistency for the Total Difficulties scale for both parent (.80) and teacher (.82) ratings. Despite adequate Prosocial scale scores for teacher ratings (.82), parent ratings (.67) were only moderate. Test-retest reliability was sufficient across scales and raters with weighted correlations ranging from .65 to .85. More specifically, correlations for the Total Difficulties scale were .76 (parent) and .84 (teacher), while correlations for the Prosocial scale were .65 (parent) and .79 (teacher). In regards to inter-rater agreement, a meta-analytic mean of .27 is used as a benchmark of agreement (Achenbach et al., 1987). Across scales, inter-rater agreement correlations ranged from .26 to .47, with correlations of .44 for the Total Difficulties scale and .26 for the Prosocial scale.

The meta-analysis also found evidence supporting the validity of the SDQ (Stone et al., 2010). Regarding construct validity, confirmatory factor analysis supported the proposed five-factor structure in both parent and teacher versions. Studies also examined concurrent validity through weighted correlations between the SDQ and the CBCL (Achenbach, 1991), a measure that is widely considered to be the gold standard in assessing childhood psychopathologies. The SDQ is thought to measure similar constructs as the CBCL, and high correlations between the SDQ and relevant CBCL subscales provide evidence to support that notion (Stone et al., 2010). Weighted correlations between the SDQ Total Difficulties scale and the CBCL total scale were .76 for both parent and teacher ratings. Despite evidence for constructive and concurrent validity, research examining the predictive validity of the SDQ is lacking.

Although the SDQ was developed for children over the age of 4, the majority of the research investigating its psychometric properties uses child samples over the age of 7 (Mieloo et al., 2012). Due to the developmental nature of emotional and behavioural problems across childhood and adolescence (Van Leeuwen et al., 2006), it is important to consider aspects of the reliability and validity of the SDQ in younger children.

An investigation into the psychometric properties of the SDQ in children aged 5-6 years old (N = 4,516) reveals similar results to studies investigating participants of varying ages and supports the use of the SDQ with younger age groups (Mieloo et al., 2012). Confirmatory factor analysis of the parent and teacher SDQ supported the five-factor structure, providing evidence for construct validity. Similar to results obtained in the meta-analysis, reliability estimates showed higher internal consistency for teacher ratings in the younger sample, with alpha coefficient scores ranging from .56 to .85 (teacher ratings) and .49 to .78 (parent ratings) across subscales. Results suggest adequate internal consistency for the Total Difficulties scale for both

parent (.77) and teacher (.81) ratings. Despite good internal consistency for teacher Prosocial

scale scores (.81), parent ratings were only moderate (.63). Test-retest reliability was sufficient

across scales and raters, with correlations ranging from .22 to .41 (correlations of .22 for the

Prosocial scale and .41 for the Total Difficulties scale).

3.6.3 *Fun FRIENDS* **Fidelity Checklist**

Teachers in the experimental group were provided with a *Fun FRIENDS* Fidelity

Checklist (see Appendix H) to ensure adherence to the program protocol. The *Fun FRIENDS*

Fidelity Checklist was developed based on one created by MCFD. Teachers were provided with

the checklist prior to program implementation. For each session, teachers were asked to identify

the objectives met, the number of lessons taken to complete the session, and the length of

delivery. Each teacher was asked to complete the checklist after completing the session. *Fun*

FRIENDS Fidelity Checklists were collected post-program implementation.

3.7 **Summary**

The effectiveness of the *Fun FRIENDS* program in reducing symptoms of anxiety and

building social-emotional competence in early childhood was evaluated. Parents and teachers of

program participants (N = 33) completed report measures at two time points, pre- and post-

program implementation. The data collected were analyzed using a quasi-experimental approach

that incorporated a between- and within-group repeated measures analysis of variance. The

reliability of the measures was also analyzed, and checklists addressed program fidelity.

Chapter 4: Results

This study investigated the effect of a social-emotional resilience training program on levels of anxiety and social-emotional development among a group of Kindergarten and Grade 1 students (N = 33) in an urban British Columbia school district. Using a quasi-experimental design, two classrooms of children participated in the intervention (*Fun FRIENDS*), while two matched classes served as the control group (Control). Program participants' parents and teachers completed measures for both groups at the same two time points: prior to program implementation (Time 1) and post program completion (Time 2), twelve weeks later. Mixed between-within subjects analyses of variance (ANOVA) were used to investigate the impact of the *Fun FRIENDS* program on anxiety and social-emotional skills, across the two time periods. The between-subjects independent variable was group membership (*Fun FRIENDS*, Control) and the within-subjects independent variable was time (Time 1, Time 2). The dependent variables consisted of scores on parent and teacher measures of anxiety (PAS) and social-emotional skills (SDQ – Prosocial) for a total of four variables. Cronbach's alpha coefficient values were calculated to determine the internal consistency of the PAS and SDQ subscales used in the study. Data analyses were conducted using IBM Statistical Package for the Social Sciences (SPSS) Version 21.

4.1 Preliminary Analyses

4.1.1 Acceptability Analysis

The acceptability of data from the two questionnaires (PAS and SDQ) was explored through an inspection of missing values. A threshold of 5% missing values was used, indicating that measures missing more than 5% of items were not incorporated in data analyses. Although some parent reports contained missing items, none of the completed PAS or SDQ measures were

missing more than one item per measure; therefore, all parent and teacher report measures were considered acceptable for data analyses.

4.1.2   Assumptions of ANOVA

Prior to conducting statistical analyses, preliminary analyses were conducted to test for violations of the assumptions underlying the statistical techniques used. The assumption of normality was tested by computing the Kolmogorov-Smirnov statistic. All mean scores from the four variables, except the means from the parent version of the PAS at Time 1 ($p = .20$) and Time 2 ($p = .10$), violated the assumption of normality (ranging from $p < .000$ to $p = .003$), suggesting that the scores were not normally distributed. For each dependent variable, skewness and kurtosis of the data were calculated to test whether the distribution of parent and teacher rated scores on the PAS and SDQ Prosocial scale was normal. While the majority of the variables had skewness and kurtosis values placing between -1.0 and +1.0, several variables did not satisfy the criteria for a normal distribution: teacher PAS at Time 1 and 2, and the teacher SDQ Prosocial subscale at Time 2. The skewness of the teacher PAS at Time 1 (1.67) and Time 2 (2.09) and the kurtosis at Time 1 (2.25) and Time 2 (3.93) indicated that the data were not normally distributed. At Time 2, the skewness of the teacher SDQ Prosocial distribution (-.61) was acceptable, but the kurtosis (-1.12) did not satisfy the criteria for normal distribution.

To correct for violations of normality, Box-Cox transformations (Box & Cox, 1964; Osborne, 2010) were applied to each of the dependent variables for optimal normalizing transformations. All analyses of subscale scores of the PAS and SDQ were conducted with transformed data.

Levene's Test of Equality of Error Variances (Levene, 1960) was used to detect violations of the assumption of homogeneity of variances. The assumption of homogeneity of

variances was met for parent and teacher reports of the PAS and SDQ Prosocial scales at all time points, $p > .05$. The homogeneity of inter-correlations assumption was tested using Box's Test of Equality of Covariance Matrices. All tests met this assumption, $p > .001$.

4.1.3 Internal Consistency Reliability

The internal consistency reliability was investigated for parent and teacher report measures using the original, untransformed data. Table 4.1 presents the Cronbach's alpha coefficient values for the measures used in the present study at both time points. The internal consistency of the parent and teacher reports of the PAS Total scale and SDQ Prosocial scale was acceptable, with all Cronbach's alpha coefficients above .70.

Table 4.1 Internal Consistency of Measures (N = 33)

	PAS-Parent	PAS-Teacher	SDQ-Parent	SDQ-Teacher
	Cronbach's α	Cronbach's α	Cronbach's α	Cronbach's α
Time 1	0.883	0.867	0.734	0.878
Time 2	0.882	0.902	0.701	0.843

Note. PAS = *Preschool Anxiety Scale*; SDQ = *Strengths and Difficulties Questionnaire*.

4.2 Descriptive Statistics

4.2.1 Participant Characteristics

The demographic characteristics of participants at Time 1 are outlined in Table 4.2. Demographic information included participant age, gender, and primary language spoken at home.

Table 4.2 Participant Demographic Characteristics at Time 1 (N = 33)

Demographic Characteristic	*Fun FRIENDS*		Control		Total	
	n	*%*	*n*	*%*	*n*	*%*
Gender						
Male	11	57.9	5	35.7	16	48.5
Female	8	42.1	9	64.3	17	51.5
Age						
5	7	36.8	4	28.6	11	33.3
6	10	52.6	7	50.0	17	51.5
7	2	10.5	3	21.4	5	15.2
Grade						
Kindergarten	11	57.9	7	50.0	18	54.5
Grade 1	8	42.1	7	50.0	15	45.5
Primary language						
English	19	100.0	12	85.7	31	93.9
Japanese	0	0.0	1	7.1	1	3.0
Spanish	0	0.0	1	7.1	1	3.0

4.2.2 Means and Standard Deviations

The original, untransformed, means and standard deviations of all dependent variables are presented below in Table 4.3. Large discrepancies exists between parent and teacher mean scores of participant anxiety. A discussion of the informant discrepancy is presented in the following chapter.

Table 4.3 Means and Standard Deviations for the PAS and SDQ – Prosocial, Parent and Teacher Report (Untransformed Data)

	n	PAS-P		PAS-T		SDQ-P		SDQ-T	
		M	SD	M	SD	M	SD	M	SD
Fun FRIENDS									
Time 1	19	22.53	13.15	8.63	8.32	8.47	1.74	6.42	2.80
Time 2	19	19.79	11.89	6.11*	8.5	8.63	1.67	7.79*	2.04
Control									
Time 1	14	25.00	15.71	5.36	7.86	8.29	1.64	8.71	1.73
Time 2	14	25.29	14.13	6.21	8.45	7.93	1.82	8.71	1.90
Total Sample									
Time 1	33	23.58	14.11	7.24	8.17	8.39	1.68	7.39	2.63
Time 2	33	22.12	12.97	6.15	8.35	8.33	1.74	8.18*	2.01

Note. PAS-P = *Preschool Anxiety Scale – Parent Report*; PAS-T = *Preschool Anxiety Scale – Teacher Report*; SDQ-P = *Strengths and Difficulties Questionnaire – Parent Report (Prosocial Scale)*; SDQ-T = *Strengths and Difficulties Questionnaire – Teacher Report (Prosocial Scale)*. *$p < .05$, two-tailed.

4.3 ANOVA

Mixed between-within subjects ANOVAs, using the transformed variables, were computed to compare mean differences between groups over time. The between-subjects factor was group membership (Fun FRIENDS vs. Control) and the within-subjects factor was pre- (Time 1) and post-scores (Time 2) on measures. Four separate mixed between-within subjects ANOVAs were conducted for anxiety (PAS scores) and social-emotional skills (SDQ – Prosocial sores) as rated by parents and teachers. Cohen's (1988) guidelines were used to interpret the strength of the effect sizes, suggesting partial eta squared values of .01 as small, .06 as medium, and .14 as large effect sizes. All ANOVAs were computed using transformed data.

4.3.1 Anxiety

Two separate mixed between-within ANOVAs were conducted using transformed data to assess the impact of the *Fun FRIENDS* program on participants' perceived level of anxiety

symptoms, across two time points (pre-intervention and post-intervention), based on parent and teacher reports.

Based on parent anxiety reports, there was no significant interaction between group (*Fun FRIENDS*, Control) and time (Time 1, Time 2), Wilks' λ= .92, F (1, 31) = 2.63, p = .12, partial η^2 = .08. The results suggest that there was no significant difference in parent-rated anxiety symptoms over time, regardless of treatment group. No main effects for time, Wilks' λ= .98, F (1, 31) = .74, p = .40, partial η^2 = .02, or group, F (1, 31) = .61, p = .44, partial η^2 = .02, were found.

Teacher reports of participants' anxiety symptoms revealed a statistically significant interaction between group and time, Wilks' λ = .73, F (1, 31) = 11.24, p = .002, partial η^2 = .27, suggesting a large effect size. The results indicate that participant anxiety symptoms differed significantly between children in the *Fun FRIENDS* program and children in the control group, over time. Participants in the *Fun FRIENDS* program showed decreases in anxiety scores from Time 1 to Time 2, while control participants showed increases in anxiety. No main effects for time [Wilks' λ = .73, F (1, 31) = 1.29, p = .27, partial η^2 = .04] or group [F (1, 31) = .36, p = .55, partial η^2 = .01] were found.

Figure 4.1 *Preschool Anxiety Scale* – Teacher Report Estimated Marginal Means Total Scale Scores Per Group Across Two Time Periods (Untransformed Data)
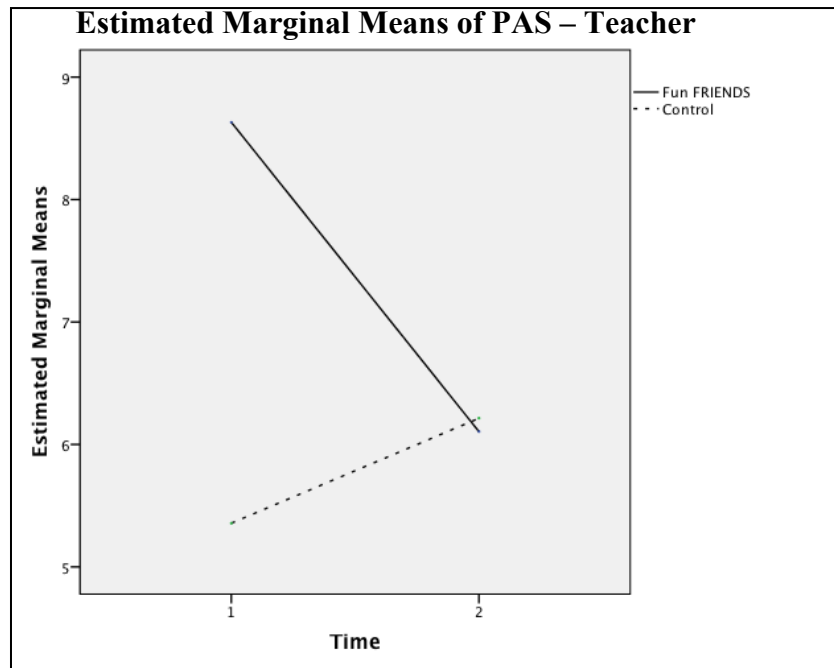

4.3.2 Social-Emotional Skills

Two mixed between-within subjects ANOVAs were also conducted using transformed data to assess the impact of the *Fun FRIENDS* program on perceived levels of participants' social-emotional skills, across two time points.

Based on parent reports, there was no significant interaction between group and time, Wilks' λ = .98, F (1, 31) = .58, p = .45, partial η^2 = .02. The main effect for time was not statistically significant, Wilks' λ = 1.00, F (1, 31) = .09, p = .77, partial η^2 = .00. The main effect comparing the two groups was also not significant, F (1, 31) = .87, p = .36, partial η^2 = .03, suggesting no difference in the effectiveness of the two groups on social-emotional skill development.

Teacher reports of participants' social-emotional skills were also analyzed. There was no interaction between group and time, Wilks' λ= .95, F (1, 31) = 1.78, p = .19, partial η^2 = .05.

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There was, however, a main effect for time, Wilks' λ= .85, F (1, 31) = 5.38, p = .03, partial η^2 = .15, indicating a large effect size. The results indicate an overall increase in social-emotional skills from Time 1 to Time 2, regardless of treatment condition. The main effect for group was also significant, F (1, 31) = .4.14, p = .05, partial η^2 = .12, indicating a moderate effect size. The results suggest that participants in the control group had overall higher social-emotional scores at both time points, than participants in the *Fun FRIENDS* program.

Figure 4.2 *Strengths and Difficulties Questionnaire* – Prosocial Scale Teacher Report Estimated Marginal Means Total Scale Scores Per Group Across Two Time Periods (Untransformed Data)
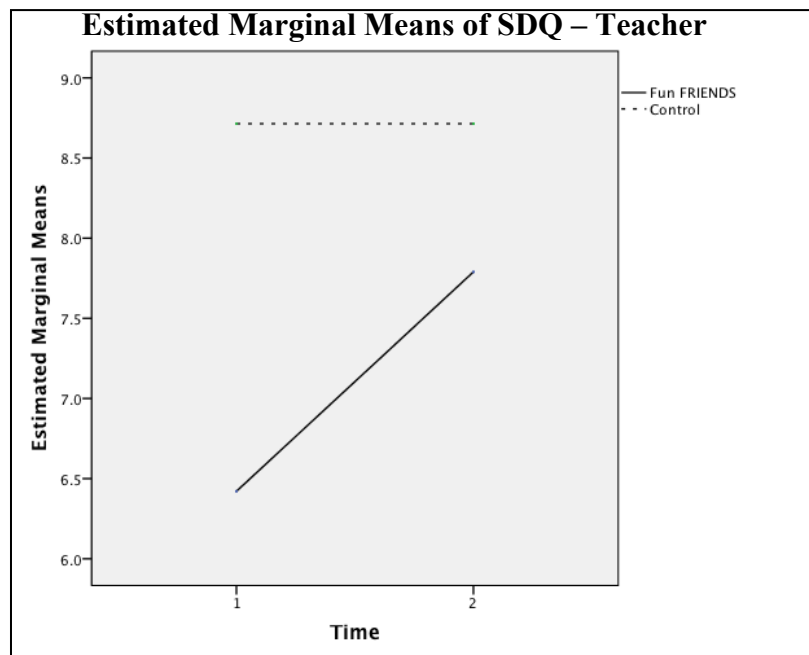

4.4   Program Fidelity

Teachers in the experimental group were provided with a Fidelity Checklist prior to program implementation. The checklist requested that they document information pertaining to program implementation including: meeting program objectives, method of delivery, and length of delivery.

To evaluate whether program objectives had been met, percent compliance was calculated for each session. Percent compliance was measured as the total percentage of session objectives completed per session. The overall mean percent compliance for all 12 sessions was 90.75% ($SD = 10.84$), with individual sessions ranging from 75-100%.

Program delivery method was calculated as the number of lessons used to implement each session. As stated in the *Fun FRIENDS* manual, each program session may be broken down into two or more smaller lessons spread over the course of a week (Barrett, 2007a). Teachers delivered each session in an overall mean of 1.75 ($SD = .64$) lessons per week, with total number of lessons per session ranging from one to three sessions. The overall mean total length of session delivery time was 71.50 minutes ($SD = 3.66$), with total delivery time of each session ranging from 60-75 minutes.

4.5   Summary of Results

The data were analyzed using four mixed between-within 2 x 2 ANOVAs. Participants showed statistically significant changes in anxiety symptoms and social-emotional skills, as rated by teachers. Mean comparisons indicate a statistically significant interaction between group membership and time on teacher reported anxiety symptoms. The interaction effect suggests that children who participated in the *Fun FRIENDS* program were reported by teachers to have decreases in anxiety symptoms over time. A within-group comparison showed significant increases in participants' social-emotional skills over time as rated by teachers. Mean inspections reveal that participants in the *Fun FRIENDS* group showed increases in social-emotional skills, while participants in the control group remained the same. A between-group comparison, however, indicates that participants in the control group had significantly higher overall social-emotional scores when compared to participants in the *Fun FRIENDS* program. Despite finding

statistically significant interaction and main effects for teacher reports, these findings should be interpreted with caution.

An examination of checklists completed by teachers in the experimental group demonstrates support for program fidelity.

Chapter 5: Discussion

The current chapter presents an overview of the study's findings. A discussion of the study's strengths and limitations is also presented, in addition to suggested future directions for research.

5.1 Summary

The present study used a quasi-experimental, nonequivalent groups design to examine the effect of the *Fun FRIENDS* program on levels of anxiety and social-emotional skills among a group of Kindergarten and Grade 1 students. Participants included students (N = 33; experimental *n* = 19; control *n* = 14) in four classrooms (experimental *n* = 2; control *n* = 2) located in two schools (experimental *n* = 1; control *n* = 1) within one urban school district in British Columbia. Parents (N = 33) and classroom teachers (N = 4) completed 2 measures prior to the implementation of the intervention (Time 1) and immediately following the completion of the program (Time 2). The control group did not receive the *Fun FRIENDS* program. The multi-informant measures included two parent reports (*Preschool Anxiety Scale* – Parent Version; *Strengths and Difficulties Scale* – Parent Report) and two teacher reports (*Preschool Anxiety Scale* – Teacher Version; *Strengths and Difficulties Scale* – Teacher Report). Teachers in the experimental group completed a *Fun FRIENDS* Fidelity Checklist to evaluate program implementation.

The results provide evidence to support the hypotheses outlined at the outset of this study. The first hypothesis of this study posits that *Fun FRIENDS* participants would have statistically lower scores on a measure of anxiety at program completion (Time 2) than those who did not participate in the program. The data were analyzed using a mixed between-within ANOVA and results support this hypothesis. There was a statistically significant interaction

between group and time for teacher reported anxiety symptoms. These results indicate that teachers reported *Fun FRIENDS* participants to have decreases in anxiety symptoms over time, while control participants were reported to have increases in anxiety symptoms. While the analysis supports this finding, the practical significance of a change in anxiety symptoms is unremarkable. When comparing teacher reports, control participants' mean anxiety score was lower than program participants' at all time points, suggesting that groups differed at baseline.

The second hypothesis posits that children who participated in the *Fun FRIENDS* program would have statistically higher scores on a measure of social-emotional skill development post-program implementation (Time 2) than those who did not participate in the program. Group means were compared using a mixed between-within ANOVA and results indicate statistically significant main effects for group and time on teacher rated participant social-emotional skills. A within-group comparison suggests overall mean increases in social-emotional skills over time, regardless of treatment group. Mean inspections reveal that program participants had increases in teacher-rated social-emotional skills over time, while children in the control group remained the same. A between-groups comparison, however, reveals that participants in the control group had overall significantly higher social-emotional scores when compared to participants in the *Fun FRIENDS* program. Analysis of parent-rated participant social-emotional skills suggests that parents did not perceive significant differences in participants' social-emotional skills, regardless of treatment group.

Despite statistically significant findings, a number of limitations threaten the validity and reliability of the results. Therefore, the results of the present study need to be interpreted with caution. A discussion of these limitations, including large informant discrepancies and concerns regarding the accuracy of informant ratings, are presented in the following sections.

5.2   Informant Discrepancies

Among controlled treatment trials, it has been established that informants' ratings (child, parent, teacher) of social, emotional, and behavioural problems in children are often discrepant (Achenbach, McConaughy, & Howell, 1987; De Los Reyes & Kazdin, 2005). While discrepancies generally range from moderate to large, research suggests that differences between informant scores can vary according to informant pair (mother-father, parent-child, parent-teacher) and problem type (internalizing versus externalizing; De Los Reyes & Kazdin, 2005).

While informant ratings are more often discrepant between child-parent/teacher pairs, high rates of informant disagreement also exist between parent-teacher reports of child problems (Benjamin, Puleo, & Kendall, 2011; De Los Reyes, Alfano, & Beidel, 2010; DiBartolo & Grills, 2006;). Informant discrepancies also differ in regard to problem type; greater concordance is evident among informants' ratings of child externalizing problems when compared with ratings of internalizing problems (De Los Reyes & Kazdin, 2005). Informant agreement is stronger when problems are more observable (externalizing) as opposed to when problems are less observable (internalizing; De Los Reyes & Kazdin, 2005).

Among research samples of anxious children, notably large discrepancies are found between parent-teacher ratings (De Los Reyes, Alfano, & Beidel, 2010). More specifically, low to moderate levels of informant concordance has been found for ratings of child anxiety. When compared to parent ratings, teacher reports of child anxiety are much lower (Benjamin, Puleo, & Kendall, 2011; Berg-Nielsen, Solheim, Belsky, & Wichstrom, 2012; Choudhury et al., 2003; Grills & Ollendick, 2003; Rapee et al., 1994). It is argued that parent-teacher informant discrepancies may be explained by contextual differences in child observations, with children behaving differently at home and at school (De Los Reyes & Kazdin, 2005).

Consistent with the research, the present study found large differences between parent reports of child anxiety and teacher report of child anxiety at all time points. Mean parent ratings of child anxiety are consistent with previous findings involving studies using the PAS (Broeren & Muris, 2008; Spence et al., 2001). Teacher ratings of child anxiety symptoms could not be verified because no studies using the PAS teacher version were found in the literature, using search terms preschool, anxiety, teacher on PsychInfo. While significant results were identified for decreases in teacher ratings of child anxiety, an examination of teacher reports reveals floor effects. The majority of teachers rated participants' total anxiety score below 10 (82% at Time 1 and at Time 2) out of a possible score of 88 points. At this time it is unclear if teacher ratings represent an accurate portrayal of child behaviour in the classroom, or if teachers underreported participant anxiety. In light of the discrepant findings, these considerations should be taken into account and the results of this study should be interpreted with caution.

Similar to parent anxiety ratings, parent mean scores of participants' social-emotional skills are consistent with previous studies using the SDQ Prosocial scale (Bourdon, Goodman, Rae, Simpson, & Koretz, 2005; Goodman, 1997, Stone et al., 2010). Teacher ratings, however, were largely inconsistent with normative data (Meltzer, Gatward, Goodman, & Ford, 2000). While experimental group teachers rated program participants more in accordance with normative data, Time 1 ratings were lower than would be expected. Meanwhile, teachers in the control group rated their students significantly higher than normative data. These inconsistencies should be taken into account when considering the findings of this study, as it is unknown whether teacher ratings represent an accurate reflection of participants' true social-emotional competence.

Teacher bias likely influenced the accuracy of teacher anxiety and social-emotional ratings. Teachers participating in the experimental group were trained as *Fun FRIENDS* facilitators, while teachers in the control were not. As trained facilitators who voluntarily agreed to participate in the present study, it is likely that these teachers were invested in program results and may have been sensitive to positive changes in program participants. Due to the suspected bias in teacher reports, the results of this study should be interpreted with caution.

5.3 Limitations

Several additional limitations threaten the validity of this study. This study used a quasi-experimental, nonequivalent groups design, whereby classrooms were assigned to experimental and control groups using convenience sampling. Although efforts were taken to match groups prior to data collection, groups were nonequivalent at baseline due to individual differences between participants in the experimental and control groups at the start of the study. Moreover, nonequivalent group designs are subject to selection-regression with ratings regressing toward the mean.

The study's small sample greatly limits power and the current data analyses did not account for the level of randomization (see discussion below in Future Direction). A low response rate of consenting parents (38%) limited the number of participants, and introduces another source of bias into the study. Parents giving consent may have been limited to those with concerns for their children, those with English as their first language, or those with who were anxious themselves. While multiple informants were used, participant evaluations were based on parent and teacher reports, thereby introducing response bias, as informants were not blinded to treatment condition. As a result, their group membership may have influenced their reporting style.

Threats to the external validity of the study impact the generalizability of the results. As a result of the small size, the results may not be representative of the larger population and therefore results cannot be generalized with certainty. Moreover, measures were provided in English, which may have limited the number of parents able to participate. Participants' ethnic diversity, as measured based on reported primary language(s) spoken in the home, suggests that the sample was not representative of B.C. provincial data. A total of 94% participants were reported to speak English as their primary home language, while the provincial average is 82% (Statistics Canada, 2010).

5.4   Strengths

Several strengths of this study are worth noting. The use of a control group helped to minimize the history and maturation effects that threaten the validity of many studies. As a result, treatment effects, as opposed to naturally occurring developmental changes, can more readily account for observed differences between groups.

The selected measures for this study are also a source of strength. The use of standardized measures, with adequate psychometric properties, completed by both parents and teachers, allows for a comprehensive representation of participants' behaviour in multiple settings. Considering the focus of the intervention is to reduce symptoms of anxiety while promoting the development of social-emotional skills, there is value in selecting strength- and deficit-based measures. The chosen measures provide insight into the constructs of anxiety and social-emotional competencies, targeted specifically for younger populations. These measures have been used in other empirical program evaluations as an indicator of the same constructs.

Another strength of this study is the consideration of program fidelity. Teachers in the experimental group participated in a full-day training session from the Ministry of Children and

Family Development. The training session outlined the program objectives and systematically reviewed session content and activities, ensuring that teachers were well prepared for program delivery. Fidelity checklists for teachers in the experimental group were also completed to ensure systematic program implementation in efforts to preserve treatment integrity. The checklists were completed across the course of program implementation to ensure that fidelity was maintained.

5.5   Future Direction

In order to provide evidence of program impacts, studies using randomized experimental designs with larger sample sizes are needed to establish stronger relations between the *Fun FRIENDS* program and its effectiveness in reducing anxiety and promoting social-emotional skills. While the results of this study are promising, future research should include a larger sample of classrooms, and data analyses need to account for the level of randomization and incorporate multilevel models (Flay et al., 2005). In school-based research, participants often belong to naturally occurring groups (classrooms), which should be accounted for when conducting data analyses for school-based research. As a member of a classroom, participant ratings may not be independent of other participants from the same classroom, thereby violating the assumption of independent observations (Flay et al., 2005). Furthermore, classroom teachers have variable levels of skill and differing methods of lesson delivery. To account for the unique features of classroom-based research, analyses should be conducted at the level of randomization and multilevel models can be used to account for the fact that participants are nested within classrooms (Brown, 1993; Bryk & Raudenbush, 1992; Flay et al., 2005; Hedeker et al., 1994). These methodological procedures would provide improvements to the power and robustness of the statistical analyses and help to ensure the validity and generalizability of the results.

Research investigating the effectiveness of universal, school-based programs has often cited a lack of significant differences from pre- to post-intervention (Barrett et al., 2005; Misfud & Rapee, 2005). A review of research investigating school-based anxiety prevention programs demonstrates that latent program effects are commonly cited, suggesting that potential program effects may be missed without long-term follow-up evaluation (Neil & Christensen, 2009). In a 12-month follow-up condition, Pahl and Barrett (2010) found significant decreases in anxiety symptoms and significant increases in social-emotional skills, as rated by parents, in *Fun FRIENDS* program participants. These results emphasize the importance of evaluating post-program participant changes through follow-up conditions in order to achieve a comprehensive estimation of program effectiveness (Flay et al., 2005). Due to the rapid developmental changes that occur during childhood, and supporting evidence for latent program effects, additional follow-up would provide valuable information regarding the effectiveness of the *Fun FRIENDS* program.

5.6 Conclusion

Anxiety disorders are the most commonly occurring mental health concern among children, with prevalence estimates of approximately 25% (Merikangas et al., 2010). Increasing prevalence rates of mental health disorders and the recognition of their economic costs to society, have established the need for universal programs and initiatives that incorporate a preventative approach to mental health, as opposed to individual and illness-based models (Schofield et al., 2011). Evidence-based research has emphasized the need for early intervention to mitigate the risk of future illness, and researchers have acknowledged that mental health problems can often be prevented (Hirshfeld-Becker et al., 2008; Rapee et al., 2005).

As a result, the government of B.C. has established public policy to enhance universal school-based SEL programs, such as *Fun FRIENDS*, as a means of promoting resilience and social-emotional development in children (British Columbia Ministry of Health Services and Ministry of Children and Family Development, 2010). The increased governmental resource and fiscal expenditure on SEL programs has highlighted the need for evidence-based research investigating their effectiveness in local populations. Despite evidence supporting the use of anxiety prevention programs among children in intermediate grades, few studies have investigated the effectiveness of universal SEL programs among the target population: primary school-aged children. Moreover, studies investigating the *Fun FRIENDS* program are very limited, none of which are independent reviews.

In light of the shift toward prevention, the *Fun FRIENDS* program promotes social-emotional skills as a prevention intervention for young children. More specifically, the *Fun FRIENDS* program exemplifies an universal intervention, whereby children enrolled in a primary grade are given the opportunity to gain social-emotional competence while engaged in a play-based intervention aimed at reducing the risk of anxiety disorders (Pahl & Barrett, 2007). The development of social-emotional skills among young children may contribute to decreased rates of mental illness among the general population. As a universal intervention, the program promotes unique benefits, including widespread social-emotional development, reduced stigmatization, and fewer resource demands (Lau & Rapee, 2011).

The present study attempted to provide empirical insight into stated gaps through an examination of the effectiveness of the *Fun FRIENDS* program in reducing anxiety symptoms and promoting social-emotional skills among a sample of Kindergarten and Grade 1 students. The data suggest that *Fun FRIENDS* is a promising universal SEL prevention program for

primary school-aged children. When compared to children in a control group, teachers reported decreased levels of anxiety in program participants and non-participants increased in anxiety symptoms. While the analysis supports this finding, the practical significance of a change in anxiety symptoms is unremarkable. Teachers also reported that children who participated in the program had increased social-emotional skills, while those in the control group remained the same. No significant results were found for parent rated levels of anxiety or social-emotional skills.

While this research may demonstrate the hope of program effectiveness in reducing anxiety and promoting social-emotional skills, the results should be interpreted with caution due to the presented limitations of this study. Independent randomized controlled trials using larger sample sizes and additional follow-up conditions to assess for any latent effects of the program are recommended at this time. As greater fiscal expenditure is allocated to the implementation of the *Fun FRIENDS* program, advanced research will provide needed insight into the potential of this program in promoting resilience and enhancing protective factors, while mitigating risk factors associated with mental health disorders.

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Appendices

Appendix A

a place of mind
THE UNIVERSITY OF BRITISH COLUMBIA

Department of Educational and Counselling
Psychology, and Special Education
2125 Main Mall
Vancouver, BC Canada V6T 1Z4
Tel: 604-822-8321

TEACHER CONSENT FORM - E

Managing Anxiety Through Early Childhood Social-Emotional Development

Principal Investigator: <u>Dr. Lynn Miller, Ph.D.</u>   Co-investigator: <u>Hannah Dohl, M.A. Candidate</u>
Department of Educational and Counselling Psychology, and Special Education
University of British Columbia, Tel. 604-822-8539

April 2013,

Dear Kindergarten/Grade 1 Teacher,

<u>Purpose:</u>
Kindergarten and grade 1 teachers in the ▮▮▮▮▮▮▮ School District are invited to participate in the Managing Anxiety Through Early Childhood Social-Emotional Development research project. The purpose of the research is to examine the effectiveness of the *Fun FRIENDS* program in reducing anxiety and building social-emotional competence in young children. Results from this study will be reported in a graduate thesis and will contribute to the growing empirical evidence regarding the efficacy and effectiveness of the program, as implemented within a Canadian context.

The most frequently occurring form of social-emotional disturbances are internalizing disorders, including mood and anxiety problems. Anxiety disorders, in particular, have an exceptionally high incidence and are the most common mental health concern of children. Epidemiological estimates indicate that approximately 25% of children are at risk of developing an anxiety disorder. The high prevalence of childhood anxiety disorders, coupled with low reports of treatment, has underscored the need for further research into the topic.

Only recently have researchers acknowledged that clinical anxiety symptoms can begin to manifest in early childhood. As an effective means to alleviate the development of anxiety disorders, prevention literature has highlighted the need for early prevention and intervention efforts. Considering that most anxiety disorders have an early onset, young childhood may represent an ideal stage to introduce prevention efforts. Through the development of anxiety-management skills and coping skills, such prevention programs may mitigate the onset of later mental health problems.

<u>Study Procedure:</u>
Participants will be recruited from 8 kindergarten and grade 1 classes in elementary schools within the ▮▮▮▮▮▮▮ School District. The *Fun FRIENDS* program will be delivered to students in the experimental group between the months of April-June 2013. Students in the control group will not receive the *Fun FRIENDS* program during this school year.

<u>Role of the Teacher:</u>
All participating teachers will be asked to:
1. Distribute parent consent forms to their students and direct any parental inquiries to the research team at 604-822-8539 or ffubcresearch@gmail.com.
2. After completing the required training, deliver the *Fun FRIENDS* program to your classroom accordingly.
3. Provide class lists of student participants and availability for data collection at two time points during the school year.
4. Complete the *Preschool Anxiety Scale* and the *Strengths and Difficulties Questionnaire* for all participating students at two time points (approximately 2-3 hours total).

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Risks and Benefits:
It is anticipated that this intervention will not pose any risks to you, your school, or your students. A significant potential benefit for program participants is the reduction of anxiety symptoms and the development of social-emotional skills, which has the potential to positively impact social relationships, academic achievement, and family functioning.

Confidentiality:
Any identifying information resulting from the research study will be kept strictly confidential. All documents will be coded numerically and will be kept in a locked filing cabinet. Participants will not be identified by name in any study reports. All electronic data will be password protected and numerically coded to maintain anonymity. It is the responsibility of the teacher to maintain confidentiality, by not disclosing the identity of students participating in this study.

Compensation:
Teachers participating in the study will be compensated with a low value gift card at the completion of the research project.

Inquiries:
If you have any further questions or concerns, please contact Hannah Dohl at 604-822-8539 or ffubcresearch@gmail.com. If you have any concerns about your rights as a research subject and/or your experiences while participating in this study, you may contact the Research Subject Information Line in the UBC Office of Research Services at 604-822-8598 or if long distance e-mail RSIL@ors.ubc.ca or call toll free 1-877-822-8598.

Sincerely,

Hannah Dohl
M.A. Candidate
University of British Columbia

Page 2 of 4

TEACHER CONSENT FORM - E

Managing Anxiety Through Early Childhood Social-Emotional Development

I understand that my participation in this study is entirely voluntary and that I may refuse to participate or withdraw from the study at any time without jeopardy to my current teaching position at this school.

> ➤ I agree to distribute consent forms/questionnaires to the parents/guardians of my kindergarten/grade 1 students.

         _____ Yes   _____ No

> ➤ I agree to forward parent inquiries to the research team.

         _____ Yes   _____ No

> ➤ I agree to deliver the *Fun FRIENDS* program in my classroom between April and June 2013.

         _____ Yes   _____ No

> ➤ I agree to provide class lists of participating students and time allocated to data collection during the school year.

         _____ Yes   _____ No

> ➤ I agree to complete the *Preschool Anxiety Scale* and the *Strengths and Difficulties Questionnaire* for all participating students, at two time points during the school year.

         _____ Yes   _____ No

> ➤ I will not disclose the identity of the students participating in this study with school members outside the classroom (school principal and classroom parents exempt).

         _____ Yes   _____ No

Your signature below indicates that you have received a copy of this consent form for your own records.

Teacher's Name (please print): _____

Signature: _____ Date: _____

School: _____

Teaching Assignment (days/time): _____

All responses will be held confidential

Please complete this consent form and return to the researcher in a sealed envelop.

PLEASE RETURN THIS COPY

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a place of mind
THE UNIVERSITY OF BRITISH COLUMBIA

TEACHER CONSENT FORM - E

Managing Anxiety Through Early Childhood Social-Emotional Development

I understand that my participation in this study is entirely voluntary and that I may refuse to participate or withdraw from the study at any time without jeopardy to my current teaching position at this school.

➢ I agree to distribute consent forms/questionnaires to the parents/guardians of my kindergarten/grade 1 students.

_____ Yes   _____ No

➢ I agree to forward parent inquiries to the research team.

_____ Yes   _____ No

➢ I agree to deliver the *Fun FRIENDS* program in my classroom between April and June 2013.

_____ Yes   _____ No

➢ I agree to provide class lists of participating students and time allocated to data collection during the school year.

_____ Yes   _____ No

➢ I agree to complete the *Preschool Anxiety Scale* and the *Strengths and Difficulties Questionnaire* for all participating students, at two time points during the school year.

_____ Yes   _____ No

➢ I will not disclose the identity of the students participating in this study with school members outside the classroom (school principal and classroom parents exempt).

_____ Yes   _____ No

Your signature below indicates that you have received a copy of this consent form for your own records.

Teacher's Name (please print): _____

Signature: _____ Date: _____

School: _____

Teaching Assignment (days/time): _____

All responses will be held confidential

KEEP THIS COPY FOR YOUR PERSONAL RECORDS

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Appendix B

UBC a place of mind
THE UNIVERSITY OF BRITISH COLUMBIA

Department of Educational and Counselling Psychology, and Special Education
2125 Main Mall
Vancouver, BC Canada V6T 1Z4
Tel: 604-822-8321

PARENT CONSENT FORM

Managing Anxiety Through Early Childhood Social-Emotional Development

Principal Investigator: <u>Dr. Lynn Miller, Ph.D.</u>   Co-investigator: <u>Hannah Dohl, M.A. Candidate</u>
Department of Educational and Counselling Psychology, and Special Education
University of British Columbia, Tel. 604-822-8539

April 2013,

Dear Parent/Guardian,

<u>Purpose:</u>
Your child is invited to participate in the Managing Anxiet███████████ildhood Social-
Emotional Development research project supported by th██████████ School District and
funded by the UBC Humanities and Social Science Research Fund. The purpose of the research is to
examine the effectiveness of the *Fun FRIENDS* program in reducing anxiety and building social-
emotional competence in young children. Results from this study will be reported in a graduate
thesis and may contribute to the growing empirical evidence regarding the efficacy and effectiveness
of the program.

<u>Study Procedure:</u>
████████████ruited from 8 kindergarten and grade 1 classes in elementary schools within
████████████ School District. The study will take place between the months of April-June
2013 and participants will either receive the *Fun FRIENDS* program or the usual curriculum. If you
decide to take part in this research study, you will be asked to complete two brief questionnaires at
the beginning and end of the study (approximately 30 minutes in total). It is requested that the same
parent/guardian complete all questionnaires at both time points.

<u>Risks:</u>
It is anticipated that this project will not pose any risks to you or your child. In the case that some of
the questions we ask are upsetting to you, we have provided a list of resources and support services
for your reference.

<u>Confidentiality:</u>
Any identifying information resulting from the research study will be kept strictly confidential. All
documents will be coded numerically and will be kept in a locked filing cabinet. Participants will not
be identified by name in any study reports. All electronic data will be password protected and
numerically coded to maintain anonymity. Parents are asked not to disclose the identity of other
students/parents participating in this study.

<u>Compensation:</u>
Students participating in the study will receive a classroom pizza party at the conclusion of the
research project.

Page 1 of 4

Inquiries:
If you have any further questions or concerns, please contact 604-822-8539 or
ffubcresearch@gmail.com.

If you have any concerns about your rights as a research subject and/or your experiences while participating in this study, you may contact the Research Subject Information Line in the UBC Office of Research Services at 604-822-8598 or if long distance e-mail RSIL@ors.ubc.ca or call toll free 1-877-822-8598.

Sincerely,

Hannah Dohl
M.A. Candidate
University of British Columbia

PARENT CONSENT FORM

Managing Anxiety Through Early Childhood Social-Emotional Development

I understand that my participation in this study, and that of my child's, is entirely voluntary and that I may refuse to participate or withdraw from the study at any time without giving a reason and without jeopardy to my child's class standing or any other school function.

Child's Name: _____ Age: _____

Primary language(s) spoken at home: _____

Gender: __F / M__ (please circle one)   Grade: Kindergarten / Grade 1 (please circle one)

Teacher's Name: _____ School: _____

> I agree to allow my child to participate in this study.

_____ Yes   _____ No

> I agree to complete the *Preschool Anxiety Scale* and the *Strengths and Difficulties Questionnaire* at two time points during the school year.

_____ Yes   _____ No

> I will not disclose the identity of the students/parents participating in this study with other parents, students, or school staff (classroom teacher/school principal exempt).

_____ Yes   _____ No

Your signature below indicates that you have received a copy of this consent form for your own records.

Parent/Guardian Name (please print): _____

Signature: _____ Date: _____

Home Telephone Number: _____

Home Address: _____

All responses will be held confidential

Please complete this consent form and the two attached questionnaires. Return them to your child's classroom teacher sealed in the envelop provided.

PLEASE RETURN THIS COPY

PARENT CONSENT FORM

Managing Anxiety Through Early Childhood Social-Emotional Development

I understand that my participation in this study, and that of my child's, is entirely voluntary and that I may refuse to participate or withdraw from the study at any time without giving a reason and without jeopardy to my child's class standing or any other school function.

Child's Name: _____ Age: _____

Primary language(s) spoken at home: _____

Gender: ___F / M___ (please circle one)   Grade: <u>Kindergarten / Grade 1</u> (please circle one)

Teacher's Name: _____ School: _____

> ➢ I agree to allow my child to participate in this study.

              _____ Yes   _____ No

> ➢ I agree to complete the *Strengths and Difficulties Questionnaire* and the *Preschool Anxiety Scale* at two time points during the school year.

              _____ Yes   _____ No

> ➢ I will not disclose the identity of the students/parents participating in this study with other parents, students, or school staff (classroom teacher/school principal exempt).

              _____ Yes   _____ No

Your signature below indicates that you have received a copy of this consent form for your own records.

Parent/Guardian Name (please print): _____

Signature: _____ Date: _____

Home Telephone Number: _____

Home Address: _____

All responses will be held confidential

KEEP THIS COPY FOR YOUR PERSONAL RECORDS

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Appendix C

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ARE YOU IN NEED OF MORE INFORMATION, SUPPORT, OR RESOURCES?

The following are a list of resources for anyone looking for more information or support on childhood mental health and anxiety.

RESOURCE	SERVICES PROVIDED	CONTACT INFORMATION
Kelty Mental Health Resource Centre	Provincial resource centre linking children, youth and families with resources in all areas of mental health and addictions. Resources also available in other languages.	www.keltymentalhealth.ca Tel. 1-800-665-1822 (toll-free)
The F.O.R.C.E. Society for Kids' Mental Health	Offers information, resources, and support to parents with kids with mental health issues across B.C.	www.forcesociety.com Tel. 1-855-887-8004 (toll-free)
Anxiety BC	Provides comprehensive information on different types of anxiety disorders and management toolkits for families.	http://www.anxietybc.com
Canadian Mental Health Association	Offers general information on how to help and support children displaying difficult behaviours and emotional problems with tips for parents.	http://www.cmha.ca
Here to Help	Provides information and resources working to help people better prevent and manage mental health and substance use problems.	http://www.heretohelp.bc.ca
BC Ministry of Children and Family Development	Information about child and youth mental health programs and resources.	http://www.mcf.gov.bc.ca/mental_health/index.htm
The Crisis Line	The Crisis Line provides 24-hour phone support for those in need of immediate assistance.	Tel. 604-310-6789 www.crisislines.bc.ca

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Appendix D

TRANSCRIPT – PARTICIPANT RESEARCH INTRODUCTION

Managing Anxiety Through Early Childhood Social-Emotional Development

Hi Kindergarten/Grade 1 Class,

You are invited to participate in a research study.

Why are we doing this study?
By doing this study, we are trying to understand more about how we can help kids who worry and have a hard time at school.

Risks and Benefits:
We don't think that participating in this study will cause you any harm. There are some possible benefits of participating in this study. You may help us understand how to best help other kids who have a hard time at school because they worry a lot.

How can I participate?
To participate in the study you will need your parents or guardians to give you permission. You don't need to do anything else.

Privacy:
All information about you will be kept completely private and will not be shared with anyone else.

Compensation:
By participating in this study you will be entered in a draw for a chance to win one of three $20.00 gift cards to Chapters/Indigo bookstore at the end of the year.

Questions:
Do you have any questions?

Thank you!

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Appendix E

PRESCHOOL ANXIETY SCALE
(Parent Report)

Your Name: [   ]   **Date:** _____

Your Child's Name: [   ]

Below is a list of items that describe children. For each item please circle the response that best describes your child. Please circle the **4** if the item is **very often true, 3** if the item is **quite often true, 2** if the item is **sometimes true, 1** if the item is **seldom true** or if it is **not true at all** circle the **0**. Please answer all the items as well as you can, even if some do not seem to apply to your child.

		Not True at All	Seldom True	Sometimes True	Quite Often True	Very Often True
1	Has difficulty stopping him/herself from worrying.....................	0	1	2	3	4
2	Worries that he/she will do something to look stupid in front of other people...	0	1	2	3	4
3	Keeps checking that he/she has done things right (e.g., that he/she closed a door, turned off a tap)...................	0	1	2	3	4
4	Is tense, restless or irritable due to worrying..........................	0	1	2	3	4
5	Is scared to ask an adult for help (e.g., a preschool or school teacher)...	0	1	2	3	4
6	Is reluctant to go to sleep without you or to sleep away from home...	0	1	2	3	4
7	Is scared of heights (high places)...	0	1	2	3	4
8	Has trouble sleeping due to worrying.....................................	0	1	2	3	4
9	Washes his/her hands over and over many times each day.......	0	1	2	3	4
10	Is afraid of crowded or closed-in places.................................	0	1	2	3	4
11	Is afraid of meeting or talking to unfamiliar people...................	0	1	2	3	4
12	Worries that something bad will happen to his/her parents..........	0	1	2	3	4
13	Is scared of thunder storms...	0	1	2	3	4
14	Spends a large part of each day worrying about various things.....	0	1	2	3	4
15	Is afraid of talking in front of the class (preschool group) e.g., show and tell..	0	1	2	3	4
16	Worries that something bad might happen to him/her (e.g., getting lost or kidnapped), so he/she won't be able to see you again..	0	1	2	3	4
17	Is nervous of going swimming...	0	1	2	3	4

		Not True at All	Seldom True	Sometimes True	Quite Often True	Very Often True
18	Has to have things in exactly the right order or position to stop bad things from happening……………………………………………	0	1	2	3	4
19	Worries that he/she will do something embarrassing in front of other people………………………………………………………………	0	1	2	3	4
20	Is afraid of insects and/or spiders……………………………………	0	1	2	3	4
21	Has bad or silly thoughts or images that keep coming back over and over……………………………………………………………………	0	1	2	3	4
22	Becomes distressed about your leaving him/her at preschool/school or with a babysitter…………………………………..	0	1	2	3	4
23	Is afraid to go up to group of children and join their activities……..	0	1	2	3	4
24	Is frightened of dogs…………………………………………………	0	1	2	3	4
25	Has nightmares about being apart from you………………………..	0	1	2	3	4
26	Is afraid of the dark…………………………………………………	0	1	2	3	4
27	Has to keep thinking special thoughts (e.g., numbers or words) to stop bad things from happening……………………………………….	0	1	2	3	4
28	Asks for reassurance when it doesn't seem necessary…………..	0	1	2	3	4

SPENCE PRESCHOOL ANXIETY SCALE (Teacher Version)

Your Name (Teacher):_____ Grade:_ K or 1 _

Child's Name:_____ Gender:_ M or F _

Below is a list of items that describe children. For each item please circle the response that best describes the child. Please circle the **4** if the item is **very often true, 3** if the item is **quite often true, 2** if the item is **sometimes true, 1** if the item is **seldom true** or if it is **not true at all** circle the **0**. Please answer all the items as well as you can, even if some do not seem to apply to this child.

0=Not At All True   1=Seldom True   2=Sometimes True   3=Quite Often True   4=Very Often True

1. Repeatedly asks about parent(s) during the day... 0 1 2 3 4

2. Has difficulty stopping him/herself from worrying... 0 1 2 3 4

3. Keeps checking that he/she has done things right (e.g., that he/she closed a door, turned off a tap).. 0 1 2 3 4

4. Complains of headaches or stomachaches when it is time to be dropped off at school.. 0 1 2 3 4

5. Is tense, restless or irritable due to worrying... 0 1 2 3 4

6. Is scared to ask an adult for help (e.g., a school teacher)............................. 0 1 2 3 4

7. Is scared of heights (high places)... 0 1 2 3 4

8. Washes his/her hands over and over many times each day............................... 0 1 2 3 4

9. Is afraid of meeting or talking to unfamiliar people.. 0 1 2 3 4

10. Worries that something bad will happen to his/her parents............................. 0 1 2 3 4

11. Spends a large part of each day worrying about various things..................... 0 1 2 3 4

12. Is afraid of talking in front of the class (e.g., show and tell) 0 1 2 3 4

13. Worries that something bad might happen to him/her (e.g., getting lost or kidnapped), so he/she won't be able to see his/her parents again......................... 0 1 2 3 4

14. Has to have things in exactly the right order or position to stop bad things from happening.. 0 1 2 3 4

15. Worries that he/she will do something embarrassing in front of other people 0 1 2 3 4

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0=Not At All True   1=Seldom True   2=Sometimes True 3=Quite Often True   4=Very Often True

16. Is afraid of insects and/or spiders..   0   1   2   3   4

17. Has bad or silly thoughts or images that keep coming back over and over.....   0   1   2   3   4

18. Becomes distressed when he/she is dropped off at school...............   0   1   2   3   4

19. Is afraid to go up to a group of children and join their activities....................   0   1   2   3   4

20. Has to keep thinking special thoughts (e.g., numbers or words) to stop bad things from happening...   0   1   2   3   4

21. Asks for reassurance when it doesn't seem necessary...................................   0   1   2   3   4

22. Cries for parent whilst at school..   0   1   2   3   4

Thank you for completing this questionnaire

Appendix F

Strengths and Difficulties Questionnaire

For each item, please mark the box for Not True, Somewhat True or Certainly True. It would help us if you answered all items as best you can even if you are not absolutely certain or the item seems daft! Please give your answers on the basis of the child's behaviour over the last six months or this school year.

Child's Name ....   Male/Female

Date of Birth..

	Not True	Somewhat True	Certainly True
Considerate of other people's feelings	☐	☐	☐
Restless, overactive, cannot stay still for long	☐	☐	☐
Often complains of headaches, stomach-aches or sickness	☐	☐	☐
Shares readily with other children (treats, toys, pencils etc.)	☐	☐	☐
Often has temper tantrums or hot tempers	☐	☐	☐
Rather solitary, tends to play alone	☐	☐	☐
Generally obedient, usually does what adults request	☐	☐	☐
Many worries, often seems worried	☐	☐	☐
Helpful if someone is hurt, upset or feeling ill	☐	☐	☐
Constantly fidgeting or squirming	☐	☐	☐
Has at least one good friend	☐	☐	☐
Often fights with other children or bullies them	☐	☐	☐
Often unhappy, down-hearted or tearful	☐	☐	☐
Generally liked by other children	☐	☐	☐
Easily distracted, concentration wanders	☐	☐	☐
Nervous or clingy in new situations, easily loses confidence	☐	☐	☐
Kind to younger children	☐	☐	☐
Often lies or cheats	☐	☐	☐
Picked on or bullied by other children	☐	☐	☐
Often volunteers to help others (parents, teachers, other children)	☐	☐	☐
Thinks things out before acting	☐	☐	☐
Steals from home, school or elsewhere	☐	☐	☐
Gets on better with adults than with other children	☐	☐	☐
Many fears, easily scared	☐	☐	☐
Sees tasks through to the end, good attention span	☐	☐	☐

Signature ....   Date ....

Parent/Teacher/Other (please specify:)

Thank you very much for your help   © Robert Goodman, 2005

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