

A PROPOSAL TO STUDY THE EFFECTIVENESS OF THE FRIENDS FOR LIFE  
PROGRAM

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## **Dedication**

I would like to dedicate this project to my family who have supported and motivated me throughout this program. Thank you all for your countless hours of editing and for your company on the road trips to Lethbridge! I would not have been able to do this without your unconditional love and encouragement.

## **Abstract**

The overall purpose of my Masters of Education (Counselling Psychology) project is to present a research proposal designed to replicate past findings showing the effectiveness of a cognitive-behavioural resilience-building/anxiety prevention program called “FRIENDS for Life” (FFL) within an Alberta school district. Anxiety and anxiety disorders represent the most common and debilitating forms of psychopathology in children (Donovan & Spence, 2000; Wehry, Beesdo-Baum, Hennelly, Connolly, & Strawn, 2015) thus, research efforts have begun to prioritize the development and ongoing effectiveness of anxiety prevention and intervention programs. While two studies performed in Canada indicate that the FFL program is effective in lowering rates of self-reported anxiety in some students (Rose, Miller, & Martinez, 2009; Miller, et al., 2011) this does not inevitably imply its success in other provincial school systems. As a result, the following is a detailed research design with the goal of providing future researchers a framework to evaluate the FFL program within specific community and/or school settings.

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## **Chapter One: Overview and Introduction**

This chapter provides insight into the professional relevance and foundation of this project. It outlines the intent, rationale and definitions of the key terminology that is used throughout the proposed research. It is concluded with a summarization of the project's overall layout.

### **Project Intent**

My intent with this project is to develop a research proposal for evaluating the effectiveness of the school-based FRIENDS for Life (FFL) cognitive-behavioural therapy (CBT) program which is designed to reduce anxiety symptoms for children between the ages of eight and 11 (Barrett, 2013). While the FFL program has been adopted internationally and has had numerous effectiveness evaluations, only a few published studies, to the author's knowledge, have sought to assess the program's effectiveness in Canada (specifically only in the province of British Columbia and Alberta; Rose, Miller, & Martinez, 2009; Miller et al., 2011).

During the 2016-2017 school year the FFL program is being piloted in one Alberta school for students in grades three to six. The following will be an outline of a research proposal for assessing the effectiveness of the FFL program in that school district, but general enough to extend its use to other schools within the province of Alberta who choose to implement it. Specifically, the goal of the proposed research is to assess the program's effectiveness in reducing Grade 3 students' self-reported symptoms of anxiety while also contributing to perceived increases in student evaluation of self-regulated coping and stress management techniques.

### **Project Rationale**

The Children's Health Policy Centre (2014) estimated that the prevalence of anxiety in children ages four to 17 is approximately 3.8% in Canada, but studies have found it to be the least treated mental health condition compared to other social emotional disturbances (Lee, Victor, James, Roach, & Bernstein, 2016; Chavira, Stein, Bailey, & Stein, 2004). Despite the frequency and often devastating impairments in academic, social as well as interpersonal functioning, the Canadian Mental Health Association (2016) reported that only one out of five Canadian children who require mental health services actually receives them. In an effort to address this growing need, some public schools have begun to implement universal programming to provide students necessary mental health education and support.

One such program that has been implemented internationally is the Australian developed FRIENDS for Life Program. FFL is based in CBT that utilizes social-emotional learning to prevent and intervene with the onset of anxiety in children (Barrett, 2013). It was designed as a universal approach however can be utilized on the selective and indicative levels. The FFL program has been adopted in numerous schools worldwide and has recently been implemented in a few school districts in Western Canada.

The Fort McMurray School District in Fort McMurray, Alberta (in partnership with the Canadian Mental Health Association – Alberta Northeast) and the Rocky View School District in Airdrie, Alberta are both implementing the FFL program within their schools and have been doing so for at least the past three years (CMHA – Wood Buffalo Region, 2016). Additionally, in the 2010-2011 school year, Alberta Health Services (AHS) performed a pilot project to evaluate the effectiveness of two different FRIENDS programs in 35 schools (Alberta Health Services, 2012). While the authors of this study

reported positive changes in anxiety symptomology, they acknowledged that the findings could not attribute the observed changes in anxiety and resilience solely to the effects of the interventions since there was no randomized control.

To date there have been no published randomized control studies that evaluate the effectiveness of this program within the province of Alberta. While two studies performed in British Columbia indicate that the FFL program is effective in lowering rates of self-reported anxiety of grade four students and for students with elevated anxiety levels (Rose, Miller, & Martinez, 2009; Miller, et al., 2011) this does not inevitably imply its success in other settings. While there are many similarities between the provinces and territories of Canada, it is important to recognize that there are significant differences in school curriculum, assessment and accountability policies across the nation's provincial education systems. These differences reflect the diversity of geography, history, language, culture and any other specialized needs of the populations it serves (The Council of Ministers of Education Canada, n.d.). Weare and Nind (2011) maintain that many types of interventions, while they may be effective in some contexts, fail to make a difference in others, therefore there is a need for replication studies to evaluate programs such as FFL for its effectiveness at an individual school or community level.

### **Glossary**

*Anxiety*: An emotion characterized by feelings of tension, worried thoughts, physical changes and behavioural responses that are part of one's normal development (American Psychological Association, 2016).

*Anxiety Disorder*: An excessive and persistent sense of apprehension and fear accompanied by physiological, cognitive and behavioural symptoms that significantly

interfere with daily living for at least 6 months (American Psychiatric Association, 2013b).

*Effectiveness*: “The effects of a program under real-world conditions” (Flay et al., 2005, p. 153).

*Transferability*: “The extent to which the measured effectiveness of an applicable intervention could be achieved in another setting” (Wang, Moss &, Hiller, 2005, p. 77).

*Universal Program*: A universal intervention is provided to all members of a population regardless of their risk for developing a disorder (Feldner & Zvolensky, 2004)

*Selective Program*: A selective intervention targets only individuals that are identified as being at-risk for developing a disorder however do not currently show significant symptoms (Feldner & Zvolensky, 2004)

*Indicative Program*: An indicative intervention is designed for individuals that demonstrate aspects or symptoms of a disorder but may be subclinical in terms of a diagnosis (Feldner & Zvolensky, 2004).

## **Project Layout**

Chapter 2 provides a thorough description of the FFL program including a broad program review, relevant evidence-based literature and detailed overview of the lesson’s objectives and activities. Chapter 3 provides a literature review that explores the research regarding childhood anxiety and anxiety disorders. Areas of focus in this chapter are the current classifications of anxiety disorders and the risk and protective factors associated with children and youth. This chapter also presents details regarding anxiety and its effects on social, emotional and academic functioning. Anxiety and its relation to gender

and culture are also discussed within this chapter. It concludes with information on school-based mental health program and their transferability between contexts.

Chapter 4 focuses on the proposed methodology and provides a description of the chosen measures; Spence Children's Anxiety Scale (SCAS; Spence, 1998) and the qualitative journal prompts developed for the purpose of this proposed research. It also presents details regarding the administration, scoring and analysis protocol for both of these tools. Finally, this chapter includes the ethical considerations associated with this study including a completed ethics application for submission to the University of Lethbridge Human Subjects Research Committee.

The fifth and final chapter of this project depicts the strengths and limitations of this proposed research. It discusses the benefits of the qualitative journal prompts as a novel addition to the FFL literature. Additionally, it reflects on the limitations of the project including the reliability and validity of the journal entries, demographics of the sample and issues with universal program implementation. It concludes with future recommendations for evaluating the effectiveness of the FFL program within specific contexts.

## **Chapter Two: FRIENDS for Life Program**

This proposed research focuses on the cognitive-behavioural based preventative intervention FRIENDS for Life program. In this chapter, I discuss the program's development, philosophy and overall structure. Next, I discuss the relevant effectiveness literature regarding the FFL program and their results. Thereafter, a discussion regarding the importance of the program's transferability between contexts is presented.

### **Program Review**

Originally developed in Australia by Dr. Paula Barrett in the 1990s, the FFL program is an evidence-based anxiety prevention and resilience-building program that applies CBT techniques (The FRIENDS Program, 2016a; Sawyer, 2011). FFL was specifically designed for universal prevention of anxiety in school settings but it can be applied individually or with specific groups in mind (Higgins & O'Sullivan, 2015). There are three FRIENDS programs that span three distinct developmental stages: FUN FRIENDS (4-7), FRIENDS for Life (8-11) and My FRIENDS Youth (12-16; Barrett, 2013). FRIENDS was modelled after the Coping Cat program (Kendall, 1994); however FRIENDS was designed to be administered at a group or school wide level, rather than individually. Each session is approximately 60 minutes in length and is conducted by a member of the teaching staff who has attended the 8-hour FFL training course.

FFL is a manual-based program that provides the facilitator with a description of developmentally appropriate and engaging activities that can be completed within a group setting or with one student at a time. The 10-session program covers the following lessons: Introduction; Understanding and Recognizing Feelings; Body Cues and Relaxation; Helpful and Unhelpful Thoughts; Changing One's Thoughts; Introduction to

a Coping Step Plan; Learning from Role Models and Building a Support Team; Using a Problem Solving Plan; Using the FRIENDS Skills to Help Yourself and Others; Building on Success and Rewarding Yourself (Barrett, 2013). The main themes of the program are focused on the word ‘friends’. In order to ensure the children remember the skills and strategies presented throughout the program, they are taught to remember the acronym presented in Table 1.

Table 1

*FRIENDS Acronym*<sup>1</sup>

<p>F Feelings</p>	<ul style="list-style-type: none"> <li>• Identifying and understanding feelings</li> <li>• Empathy building</li> <li>• Recognizing body clues</li> </ul>
<p>R Remember to relax. Have quiet time.</p>	<ul style="list-style-type: none"> <li>• Relaxation techniques (diaphragmatic breathing, muscle relaxation and visualization)</li> <li>• Identifying enjoyable activities, self-soothing activities and quiet time</li> </ul>
<p>I I can do it! I can try my best!</p>	<ul style="list-style-type: none"> <li>• Paying attention to inner thoughts and feelings (green and red thoughts)</li> <li>• We control what we think and how we feel</li> </ul>
<p>E Explore solutions and coping step plans</p>	<ul style="list-style-type: none"> <li>• 6 Block problem solving plan: (1) What is the problem? (2) Brainstorm possible</li> </ul>

<sup>1</sup> Adapted from Briesch, Hagermoser-Sanetti & Briesch (2010)

<sup>2</sup> Original version from <http://www.scaswebsite.com/docs/scas.pdf>

	<p>solutions; (3) List outcomes for each solution; (4) Select best solution based on consequences; (5) Make a plan for putting solution into practice; (6) Evaluate outcome and determine whether to return to Step 2.</p> <ul style="list-style-type: none"> <li>• Identify role models</li> </ul>
<p>N</p> <p>Now reward yourself! You've done your best!</p>	<ul style="list-style-type: none"> <li>• Learn to self-reward for performance</li> </ul>
<p>D</p> <p>Don't forget to practice.</p>	<ul style="list-style-type: none"> <li>• Skills learned in the program must be practiced on a regular basis</li> <li>• Teach others how to utilize strategies</li> </ul>
<p>S</p> <p>Smile! Stay calm for life!</p>	<ul style="list-style-type: none"> <li>• Reinforce that they have learned strategies that they can use in future difficult situations</li> <li>• Plan ahead for difficult situations and use friends to help cope</li> </ul>

For educators residing outside of Australia, the Barrett Research Resources Pty Ltd (2016), offer two-four hour accredited online training courses for practitioners to run the FRIENDS groups. Online training consists of a pre-course task sheet, a facilitator accreditation application and a confidentiality agreement, which is good for three years as

the programs continue to be improved upon (The FRIENDS Program, 2016b). An individual must attend three different 8-hour sessions to be trained to facilitate all three different FRIENDS program (Fun FRIENDS, FRIENDS for Life and My FRIENDS Youth). The first day of these programs begins with training in the Adult Resilience program, and then finishes with the specific program the individual wishes to be trained in. The cost does not include the manual or activity book and there is only one publisher in Canada that sells them and only ships them to Alberta or British Columbia. Interesting to note with the manual and activity books is that an individual can purchase them without proof of training, which challenges the evidence-based approach if someone facilitates the program without appropriate training.

**Evidence-based program.** While the FFL program was initially developed and evaluated in Australia, there has been a growing base of international literature regarding the effectiveness of the program in countries such as the England, Scotland, United States, South Africa and Canada, (Stallard et al., 2005; Liddle & Macmillan, 2010; Bernstein et al., 2005; Miller et al., 2008; Rose, Miller, & Martinez, 2009). Various studies will be highlighted with a focus on universal school-based program and culturally diverse populations.

In 2015, Higgins and O'Sullivan conducted a systematic review of the FFL literature, specifically studies that utilized the program as a universal school-based intervention. Across the different studies that Higgins and O'Sullivan (2015) reviewed the effects of the FFL program had been studies with 2500 students ranging from six to 16 years of age in Australia, Germany and Ireland. All studies reported approximately equal numbers of both male and female genders, the participants in the Australian studies

came from a range of socioeconomic backgrounds and one study performed their research in schools from a socially disadvantaged catchment area. Higgins and O'Sullivan (2015) stated that while gender and socioeconomic status demographics were diversely represented, there was an overall lack of information regarding ethnic and religious diversity of participants. Also interestingly to note is that in all studies they reviewed none made mention to any non-specific effects of the intervention such as external treatment that could have inadvertently contributed to the positive effects reported. As a result, it is unknown whether the effectiveness of the FFL program claimed in these studies could be solely due to the participation in the program.

Higgins and O'Sullivan (2015) performed a systematic review of the results of seven randomised controlled trials and found that all studies reported that students who participated in the intervention groups reported fewer anxiety symptoms at post-treatment and/or follow up with small to medium overall effect sizes. All of the studies incorporated randomised control trial designs using the Spence Children's Anxiety Scale (SCAS; Spence, 1998) for a pre-test-post-test measure of anxiety symptoms. At post-intervention, three of the seven studies reported moderate effect sizes (Cohen, 1992) ranging from  $d = 0.65$  to  $d = 0.72$  (Essau, Conradt & Petermann, 2000; Lowry-Webster, Barrett, & Dadds 2001; Rodgers & Dunsmuir, 2015) while the remaining four studies reported small but positive effect sizes. Effect size, as defined by Gall, Gall and Borg (2007), is a quantitative means of judging the practical significance of a research result such as measuring the magnitude of the difference between two groups.

Stopa, Barrett and Golingi (2010) examined the effectiveness of FFL program as a universal school-based trial for students in grades five to seven ( $n = 963$ ) from socio-

economically disadvantaged communities in Brisbane, Australia. Participants from the three different schools participated in a teacher-led universal FFL program that was delivered during regular school hours. They completed measures that assessed their anxiety and depressive symptomology, self-esteem, coping skills and psychosocial difficulties at pre-, post- and a 12-month follow-up. The authors found that the self-reported data revealed significant decreases in both depressive and anxiety symptomology. The authors also noted that there were student reported reductions in peer problems, conduct problems and increases in self-esteem, and the use of coping strategies.

While the FFL program was designed as a universal-level intervention, many studies aimed to investigate the program's effectiveness when utilized with a selective sample. Pereira et al., (2014) performed a quasi-experimental study with an intervention ( $n = 17$ ) and a control group ( $n = 21$ ) aimed at analyzing the effectiveness of the FFL program in a Portuguese school with a high-risk sample of school-aged children. They found a statistically significant post-intervention effect on reducing anxiety symptoms,  $p = 0.004$ , 95% CI; (28.25, 43.99) evaluated by the children in the intervention group, however this significance was not observed by mother's evaluations. There was no significant difference between the evaluations of the mothers of the intervention and the control group. The researchers stated that because the screening process was a self-report of anxiety symptoms, their mothers might have originally evaluated their children as being non-anxious. This study is further problematic in that children's anxiety symptoms may not have been as overt or their mothers may have misinterpreted their child's

symptoms. The sample size of this study was relatively small therefore further research should incorporate a larger sample.

Several international studies have shown the effectiveness of the FFL program after it was translated into other languages (Zwaanswijk & Kösters, 2015; Gallegos et al., 2012; World Health Organization, 2004). In addition, Iizuka et al., (2014) performed a study to evaluate an adapted version of the FFL program for a multicultural population. The study was performed in a multicultural school in Brisbane, Australia with grade seven students ( $n = 45$ ), and was specifically chosen for its demographic characteristics in a low socioeconomic status area. The study was a quasi-experimental design that utilized the self-report Strengths and Difficulties Questionnaire as a pre- and post- outcome measure to evaluate the impact of the program on promoting student's emotional health. Their results showed a significant improvement for the group who was initially identified as at-risk for experiencing mental health problems, with approximately 30% of those students no longer identified as being at-risk after the intervention.

Only two studies that evaluate the effectiveness of the FFL program, to the author's knowledge, have been performed and published in Canada. Both of these studies from British Columbia had mixed and somewhat confusing results, further implicating the need for Canadian community-specific effectiveness research with the FFL program. Rose, Miller and Martinez (2009) undertook a randomized control study with 52 grade four students to investigate the effectiveness of the FFL program on student's self-reported anxiety before and after the intervention. Using the Multidimensional Anxiety Scale for Children (March, Parker, Sullivan, Stallings, & Conners, 1997) their results indicated that

all children, regardless of receiving the FFL intervention self-reported reduced levels of anxiety.

However, the researchers indicated that all of the student's anxiety levels were in the normal range (with the exception of two) at pre-test. Despite the author's claim, I believe this is problematic since it does not justify the true effectiveness of reducing anxiety if the students did not indicate that they were anxious prior to the intervention. They also indicated that the results of their qualitative questions "What was the most helpful thing you learned in the FRIENDS program?" and "Do you think anything should be changed about the FRIENDS program?" were "overwhelmingly" positive and thus suggested that the program does offer students some meaningful content. Despite their seemingly contradictory claims, Rose, Miller and Martinez (2009) support that the FFL program is an "efficient and effective way to not only provide a program to students but to train and sensitize classroom teachers to the psychosocial needs of students" (p. 406).

Another study performed in Canada aimed to culturally enrich the FFL program content to make it more relevant to Aboriginal students (Miller et al., 2011). Despite their efforts, their findings revealed that reduction in symptoms of anxiety could not be directly attributable to the enriched FFL protocol. A total of 522 students, ( $n = 192$  students of Aboriginal descent) participated in this randomized control study. While their analysis indicated that the reduction in anxiety symptoms for both the total sample and specifically the Aboriginal students could not be directly linked to the FFL program, the authors found that regardless of intervention condition, Aboriginal status or gender, there was a consistent decrease in feelings of anxiety over the 6-month study period. The

researchers concluded that students who feel initially feel anxious tend to become more comfortable as the school year progresses.

A number of limitations were apparent with this study. Although there were two Aboriginal district representatives aiding in the enrichment process, there was no one of Aboriginal descent on the research team. This is cause for concern because it may have influenced how the study was presented to the Aboriginal students and how the data was collected. In addition to this, historically speaking, research with Aboriginal populations has played a central role in both the marginalization and assimilation processes of their ancestors. Kirkness and Barnhard (1991) emphasized that programming must be relevant to the community it is serving. With this in mind, I can understanding that while the FFL program was culturally enriched for this study, it may not have actually been as relevant to the Aboriginal students to due the Westernized model of anxiety it was originally based upon.

In the 2007-2008 school year, FFL was piloted in 35 Alberta schools as a universal health promotion project by Alberta Health Services (AHS; Alberta Health Services, 2012). This project was undertaken to determine whether the program could be a viable option for addressing the mental health needs of students and moreover, yield similar efficacious results seen in other countries. Through the Mental Health School Capacity Building Project, the FFL and the Fun FRIENDS program were implemented universally to all students in the 35 pilot schools situated in all five AHS zones (North, Edmonton, Central, Calgary and South) across the province.

In the executive summary of the pilot project, it is acknowledged that a control group was not possible to include since the pilot was initiated by a different health service

then transferred to another company in late 2009. After this transfer a number of revisions were made to ensure their data collection and evaluation were improved. However, since the pilot had already been launched and the initial design already in place, a control group could not be used. Their within-group design consisted of one intervention group and pre-post outcome monitoring and a qualitative examination of the program delivery process. Data was collected through child and parent reports of the Spence Children Anxiety Scales and the Social-Emotional Assets and Resilience Scale (SEARS). There were significant increases noted on the post-measurement of the child-report of the SEARS, however no significant difference in resilience/assets on the parent-reported SEARS measure. While their post-measurement on the parent reported data indicated that there was a significant reduction in student anxiety levels after participating in FFL, they also concluded that in the absence of a randomized controlled survey, the pilot findings could not attribute the observed changes solely as a result of the program.

Considering the mixed and somewhat contrasting results of available research within Canada regarding the FFL program, further exploration into the program's effectiveness seems warranted. What is not in question though is the FFL program's clear foundation and alignment of cognitive and behavioural characteristics. CBT is acknowledged as the most studied and empirically supported type of psychotherapy for anxious youth and is considered to be the first-line treatment for mild to moderate anxiety (Sawyer & Nunez, 2014).

**Cognitive-behavioural intervention.** The CBT model believes and has proven that thoughts affect one's beliefs, which in turn affect one's emotions and behaviours (Sawyer & Nunez, 2014). The developmental perspective of anxiety persists that anxious

children have a deficit in their ability to regulate their cognitions, behaviours and emotions thus making it difficult for them to effectively cope with life's challenges. As such, CBT can be an effective treatment since it is aimed at correcting one's maladaptive thoughts that provoke emotional and behavioural disturbances (Sawyer & Nunez, 2014). Neurobiologically speaking, a study performed by Mansson et al., (2016) demonstrated that excessive neural activity in the amygdala in individuals with anxiety was normalized by CBT treatment. Therefore, because of the neural plasticity capabilities within the brain, evidence from their research suggests that the use of CBT actually changed the brains of those affected by anxiety.

Traditionally CBT consists of five core components: psychoeducation, managing body symptoms, healthy thinking, building tolerance and relapse prevention (Sawyer & Nunez, 2014). While CBT is recommended as the first-line treatment for anxious children, Sawyer and Nunez (2014) outlined some barriers for those looking to participate such as affordability and access. In an effort to resolve this, they suggest programs should be brief (less than 60 minutes), have short number of visits (less than twelve), be affordable for both providers and clients, have a manualized format to ensure accessibility and transportability and increased training availability. With this in mind, large-scale intervention programs such as FFL provide a cost-efficient, easily implemented program that is relatively short in duration.

**Value and benefits.** Sawyer (2011) outlined a number of benefits of the FFL program in his narrative review. First, he believes it is designed to combat anxiety and depressive symptoms in children while simultaneously building resiliency. When implemented as a universal preventative program, FFL delivers several benefits: it is

designed to help prevent/reduce anxiety symptoms and increase resiliency regardless of initial risk status, it reduces the stigma and possibility of labeling by selecting only some students, it has the potential for great peer modeling and support and is logistically easier to keep students together as a whole class. In addition, there is no need for screening or assessment tools since all students are able to participate in the program. This may be problematic in that not all children experience the same degree of anxiety and therefore some students may not see the relevance of this program to their lives. Additionally, participation in this program might lead some students to medicalize normal levels of anxiety in an effort to make sense of their uncomfortable feelings. While there are clear positives of this program, these benefits do not necessarily transfer to each context in which it is implemented since geographically, there are vast differences in the culture, history and the overall lived experiences of the populations. As a result, the transferability of the program must be addressed and researched.

### **Transferability of the FFL Program**

Within the past nine years, the FFL program has been implemented in a number of Alberta schools (Fort McMurray School District in partnership with the Canadian Mental Health Association, Rocky View School District in Airdrie and the pilot program by AHS), but there have been no empirically research-based and randomized control studies in Alberta. For this reason, it is essential to research whether the efficacy of the FFL program is transferable between provinces, cities and individual schools.

### **Chapter Three: Review of the Literature**

This chapter will include a review the literature that is relevant to childhood anxiety disorders and the effectiveness and transferability of the FFL program in preventing and intervening with childhood anxiety. Three main themes will be discussed: prevalence and effects of anxiety in childhood, effectiveness of universal school-based programs, including research on their transferability and an overview of the FFL program.

#### **Prevalence and Effects of Childhood Anxiety**

Anxiety is a normal process that provides an adaptive function in response to potential harm as it creates nervous system arousal and alertness to danger. However, when anxiety begins to impede normal daily functioning and causes overwhelming stress to an individual, it becomes problematic. Maladaptive anxiety can have a significant negative impact on the wellbeing a child, affecting a variety of aspects such as family, school, and social adaptation (Pereira, Marques, Russo, Barros &, Barrett, 2014).

Wehry et al., (2015) reviewed both retrospective and prospective studies and concluded that anxiety disorders are not only the most frequent psychiatric disorder in children, but also represent the earliest form of psychopathology. The Children's Health Policy Centre (2014) performed a systematic search of peer-reviewed literature and epidemiological surveys to identify the prevalence rates of childhood anxiety worldwide. They found that between the ages of four and 17, the prevalence of anxiety disorders is approximately 3.8%, higher than any other mental health disorder. Their research revealed that approximately 204 400 Canadian children are affected by anxiety disorders. Although Neil and Christensen (2009) do not offer a percentage, they suggest the actual

rate of prevalence may be much higher; with many children remaining undiagnosed and untreated as many of these individuals go unnoticed since they are typically well-behaved and exhibit relatively high social functioning (Dadds, Heard, & Rapee, 1991).

Anxiety disorders can have onset at different ages, depending on the particular diagnosis with separation anxiety disorder, specific phobia, and social phobia being most frequent in children (Beesdo, Knappe, & Pine, 2009). Additionally, anxiety disorders are often not found in isolation (Beidel & Alfano, 2011). Children diagnosed with one type of anxiety disorder display symptoms related to other anxiety disorders or present with comorbid diagnoses with depressive disorder or externalizing disorders, such as Attention Deficit Hyperactivity Disorder (Beidel & Alfano, 2011). With this being said, since anxiety is considered an internalized disorder, some anxiety symptoms can be misinterpreted since children are often well behaved and as a result go unrecognized and untreated.

Anxiety disorders can often be mistaken for other problems such as attention deficits, lower cognitive ability or lack of motivation (Huberty, 2013), therefore it is important to recognize the common symptomology. Not all children will show all signs or the same signs to equal degrees but according to Huberty (2013), stable patterns that interfere with performance can be causes for concern. Differences between anxious and non-anxious children are more obvious when signs are excessive or atypical for the developmental level, inappropriate for a situation on a frequent basis and/or persistent for several weeks or months (American Psychiatric Association, 2013a).

Since its conceptualization in the late 1960s, Lang's (1967) tripartite model of anxiety has continued to dominate the literature. This model consists of three

components: physiological components, cognitive/learning distress, and behavioural responses, for which Huberty (2013) outlined common signs within each category.

**Physiological components.** The physical or somatic aspects of anxiety encompass any bodily response in reaction to real or perceived threat or danger. Children report various physical symptoms when they are frightened or stressed, however, children who are anxious display a greater number of them (Beidel & Alfano, 2011). Stomach discomfort, increase heart rate, perspiration, headaches, muscle tension, disruptions of sleep and nausea are some of the most common somatic distresses reported in children (Huberty, 2013). While physical symptoms are a common manifestation of anxiety, not all children experience them.

**Cognitive/learning distress.** Maladaptive cognitions such as thoughts of excessive worrying are one of the prominent facets of anxiety. Through a cognitive-behavioural lens, it is these maladaptive cognitions that cause, maintain and ultimately have the resources to treat anxiety disorders (Beidel & Alfano, 2011). Beidel and Alfano (2011) suggested that the anxious cognitions of children who present with anxiety can vary by severity, frequency and controllability with some individuals expressing thoughts similar to adults and others whose cognitions are nearly absent. Maladaptive cognitive processes in the areas of concentration, memory and attention—as well as excessive worry—are some of the most common symptoms in this domain (Huberty, 2013). Observations of these symptoms are most likely to emerge during school-aged years within the classroom. They may be viewed as unmotivated, lazy or uninterested as a result of their behavioural responses.

**Behavioural response.** Similar to the cognitive distresses, Beidel and Alfano (2011) suggested that developmental maturity may alter how children express their anxiety. Typical behavioural responses can vary between restlessness, fidgeting, task avoidance, rapid speech, irritability, withdrawal, perfectionism, lack of participation, and seeking easy tasks (Huberty, 2013). Children may avoid eye contact, avoid social activities, refuse to participate, acquire repetitive behaviours or habits in an effort to decrease their distress. While these behaviours may temporarily relieve the anxiety, research in negative reinforcement, avoidance and rumination suggest that it actually strengthens the anxiety over time if not appropriately treated (Berman, Wheaton, McGrath &, Abramowitz, 2010; Clark, 1999). Although there is a range of diagnostic labels for anxiety and anxiety disorders that are differentiated by specific worries or fears, each disorder is characterized by the aforementioned physical, cognitive and/or behavioural symptoms.

### **Classifications and Symptoms of Anxiety**

For adults, youth and children, anxiety manifests in specific symptomatic clusters, such as the ones discussed in the above section: physiological, cognitive, and behavioural (Prosser, 2011). These symptoms are multidimensional and interconnected and can be observed in all of the anxiety disorder subtypes even though the specific worries or fears may differ.

**Panic disorder.** According to Barrett (2013), panic disorder is “characterized by sudden and repeated attacks of intense fear and impending doom (panic attacks) and avoidance of situations and experiences that are associated with these panic attacks” (p. 3). Typically, panic attacks are associated with severe physical symptoms such as

difficulty breathing, heart palpitations and/or chest pain/discomfort. Panic disorder is rarely observed in childhood and is more frequently witnessed in individuals by the end of adolescence (Asbahr, 2004). However some researchers state that biological vulnerability in combination with stressful life events (i.e., insecure attachment, stressful home/events or significant loss) are hypothesized to contribute to the development of panic disorder in children (Hayward, Killen, Kraemer, & Taylor, 2000). The Diagnostic and Statistical Manual of Mental Disorders, 5<sup>th</sup> edition (DSM-V) stated the prevalence rate of panic attacks in children aged 14 and under is considerably lower than in adults with a rate of <0.4% versus 2-3% for adults (American Psychiatric Association, 2013a). Youth have the same clinical symptoms as adults, however are less likely to be fearful of additional panic attacks than adults. Diagnosing panic attacks is based on a list of 13 criteria. An individual must present with four of 13 physical or cognitive symptoms to be diagnosed with a panic attack. In order to be diagnosed there must have been previous unexpected panic attacks, meaning there was no known trigger for the attack, the attacks can not be explained by another medical condition or drugs/medications, and must have one month of fear of additional panic attacks or experience significant maladaptive change due to the attacks (American Psychiatric Association, 2013a). One concern with the diagnosis practice for children is they may have less fear of additional attacks meaning the criteria for worry about additional panic attacks may reduce diagnosis in children.

**Obsessive compulsive disorder (OCD).** OCD can be described as intrusive and obsessive thoughts that the individual believes can be temporarily eased with compulsive actions or behaviours (Barrett, 2013). These compulsive actions are purposeful and are

performed in an effort to suppress, ignore or neutralize the anxiety associated with the obsessive cognition (Comer, Kendall, Hudson, & Pimentel, 2004). Lack, Huskey, Weed, Highfill, and Craig (2015) admitted that although controversy exists over the biological factors associated with OCD, some research suggests high hereditary and neurobiological links. According to the DSM-V, the prevalence rate of OCD in the general population is 1.2%. It stated that 25% of cases arise before the age of 14 (American Psychiatric Association, 2013a). In children, the compulsions are usually more visible than obsessions, and the nature of the obsessions differ between adults and children, such as children having more harm-based obsessions. To be diagnosed, children must have obsessions as well as compulsions, and either of these must consume over one hour of time per day.

**Generalized anxiety disorder (GAD).** GAD is characterized by excessive worrying or fear about events, either in the future or in the past. Headaches, stomach aches, vomiting, and sleep disturbances are common somatic symptoms of GAD (Barrett, 2013). Children with GAD have irrational and exaggerated tendencies to worry about a variety of themes such as schoolwork, sports performance, pets, being late, family/friends, world events and personal belongings (Kendall, Pimental, Rynn, Angelosante, & Webb, 2004). According to the DSM-V, the prevalence rate of GAD in adults is 2.9% and 0.9% in adolescents (American Psychiatric Association, 2013a). The author could not locate a statistic for children. In children, the content of anxiety is generally directed towards school and sports versus the adults' anxiety towards health and family wellbeing. In children the worry may be present regarding their own performances, cataclysmic events, and can tend towards perfectionism. They may seek

constant approval over their performance and need reassurance. The diagnostic criteria for GAD include excessive worry for many days than over a period of six months and difficulty controlling worry. Children must present with at least one symptom of a six-symptom list and symptoms must cause clinically significant distress (American Psychiatric Association, 2013a). GAD could be over diagnosed in children and when assessing a clinician must look at all other anxiety disorders that could be impacting a child's anxiety.

**Social anxiety disorder.** Social anxiety disorder is the fear of being embarrassed or humiliated in front of others (Barrett, 2013). In adults, it is characterized by heightened self-consciousness and negative self-evaluation in social situations (Mazur-Elmer, 2009). Young individuals with social anxiety disorder tend to express their anxiety through crying, anger or withdrawal from social situations (Asbahr, 2004). The prevalence rate of social anxiety disorder in the general population is 7%, and is the same in children (American Psychiatric Association, 2013a). The onset of the disorder is between eight and 15 years old in 75% of people diagnosed with social anxiety disorder. Children present differently than adults as their fears are expressed through tantrums or withdrawal. Criteria for diagnosis include anxiety in a social setting (in children this must occur with peers as well as adults), the fear is out of proportion to the actual threat, and the fear and anxiety are present for more than 6 months (American Psychiatric Association, 2013a).

**Separation anxiety disorder.** Separation anxiety disorder is the fear of being physically separated from primary caregivers, home or other familiar surroundings (Barrett, 2013). It is an inappropriate amount of anxiety to the level of one's

development, which lasts greater than four weeks (Asbahr, 2004). Some studies have even suggested that this disorder can manifest as a risk factor for the development of panic disorder and mood disorders in adulthood (Asbahr, 2004). The prevalence of this disorder in children is 4%, where its prevalence in adults is much less at 0.9-1.9%. The prevalence of this disorder decreases with age (American Psychiatric Association, 2013a). In children, the disorder can be seen as avoiding school and sometimes is only expressed when separation occurs. As the child ages it is sometimes expressed as worries of specific dangers or not being re-united with their caregiver. To be diagnosed, an individual must present with three criteria from a list of eight (e.g., persistent reluctance or refusal to go out), as well as have it persist for at least four weeks in children.

**Specific phobia.** This is characterized by fear of something specific, a situation (e.g., going to the dentist) or an object (e.g., spiders). Typical reactions for children with specific phobias include clinging to a parent, crying, despair, immobility, psychomotor agitation or panic attacks (Asbahr, 2004). The prevalence rate of this disorder is 5% in children and 16% in adolescents according to the DSM-V (American Psychiatric Association, 2013a). In children, it is important to take into account the functional impairment the specific phobia brings to the child. This will determine if the child is diagnosed with the disorder or if the fear is developmentally appropriate. To be diagnosed the fear must be out of proportion to the actual danger of the situation, the object or situation must always provoke fear and the situations or objects are avoided altogether or endured with extreme fear or anxiety (American Psychiatric Association, 2013a).

As a result of the aforementioned varying types and manifestations of anxiety, further exploration into the risk and protective factors is necessitated. A review of the literature on the etiology, or cause, of anxiety disorders by Donovan and Spence (2000) revealed many risk factors and somewhat fewer protective factors and a number of treatment options for childhood anxiety. They emphasized that recognizing the risk and protective factors associated with a particular disorder is important when considering intervention and prevention strategies.

### **Risk and Protective Factors**

The World Health Organization (2016) defined a risk factor as any characteristic or exposure of an individual to circumstances, contexts or experiences that increases the likelihood of developing a disorder. They define a protector factor as conditions or experiences that increase the likelihood of positive outcomes. Donovan and Spence (2000) stated that the development of childhood anxiety involves a multifaceted interplay of biological, psychological and environmental factors, which include “anxious-resistant attachment, parental anxiety, the child’s temperament style of behavioural inhibition, traumatic, negative/stressful life events, and parenting style characteristics” (p. 510).

Donovan and Spence (2000) stated that the literature is much less extensive in regards to the protective factors associated with children who failed to develop anxiety disorders even though they were exposed to the mentioned risk factors. More recent research in the field of protective factors has suggested that there are three main categories of protective factors (1) personal disposition and/or personality features; (2) family factors/attributes; and (3) external/social support/resources (Betancourt & Khan,

2008). These protective factors are categorized further into personal disposition, external support and coping strategies and are discussed in the next section.

**Personal disposition.** Betancourt and Khan (2008) summarized a number of personal characteristics and traits of resilient individuals. These included such areas of self-esteem, competence and optimism. Miechenbaum (2012) similarly stated that perceived personal control, positive emotionality, cognitive flexibility and ability to engage in enjoyable activities are all factors that contribute to how well people adapt to adversities including anxiety. While these are important, social supports have been consistently cited as significant protective factors.

**External supports.** There are a number of resiliency factors that Miechenbaum (2012) identified as contributing to how well people adapt to adversity, one of the most predominant being the availability of social relationships and the ability to access and use those social supports. Donovan and Spence (2000) indicate that there is strong support for the notion that higher levels of social support are associated with lower levels of anxiety, in the presence of or after a stressful life event. These sources of support can be from different social contexts such as family, school and/or peer groups. A study performed by Leeves and Banerjee (2014) with 108 children between the ages of 11 and 12, found that individuals in middle childhood have differentiated perceptions of sources of social support in terms of their effectiveness and availability. Moreover, they found that children viewed their teachers as least likely to provide support for a distressing situation, when compared to parents and peers. Their results indicate the need for increased social support within the school environment (teachers, support staff and peers) in addition to education regarding effective coping skills for children experiencing anxiety. However,

another study performed by Bokhorst, Sumter and Westernberg (2010) with children and adolescents between the ages of nine and 18 indicated that there is a significant age effect that determines the prominence of a teacher as a social support. They found that, as children grow older, teachers are perceived as less supportive as compared to classmates and parents. This is problematic for school-based intervention programs that are teacher-led. Older students may be more reluctant to actively engage in programs if they perceive their teacher as being unsupportive of them.

**Coping strategies.** Leeves and Banerjee (2014) stated that children's strategies for coping with negative emotions have been the focus of considerable research over the past 20 years and that overall there is much variation within and between age groups. Coping skills, as defined by Donovan and Spence (2000), refers to strategies an individual employs in an attempt to cope with negative or adverse situations. Herres (2015) acknowledged that coping strategies have been conceptually categorized into two separate strategies: approach and avoidant coping.

Approach strategies, also known as problem-focused or engagement techniques include primary control (problem solving), secondary control (i.e., cognitive restructuring) and seeking emotional support from others that are used in an attempt to alter the stressfulness of a situation (Herres, 2015). On the other hand, avoidant coping strategies or disengagement/emotion-focused strategies aim to ignore or deny the stress or anxiety-inducing situation. While avoidant strategies may provide short-term relief, these types of coping mechanisms increase the frequency and intensity of distress in the long-term (Herres, 2015), which can have a serious impact on an individual's social, emotional and academic functioning.

## **Anxiety and Functioning**

Anxiety in children is specifically associated with numerous limitations in both current and long-term social and emotional development and school functioning (Chinapaw, Utens, Kösters, Zwaanswijk, Wal, & Koot, 2012). Anxiety commonly impacts areas such as social relations, emotional functioning, and academic performance. According to Millar, Lean, Sweet, Moraes and Nelson (2013) mental health disorders can have a negative impact on familial and peer-based relationships. This is cause for concern considering these two connections are thought of as strong social supports for children during distressing times, as mentioned before.

Consistent with the previous research on anxiety and school functioning, Mychailyszyn, Mendez and Kendall (2010) found that youth struggling with anxiety demonstrate considerably greater impairments in school functioning in the areas of focus, behaviour, work ethic, attention, concentration and overall academic performance when compared to those without. Similarly Millar et al., (2013) found that school readiness, attendance, academic achievement and school-based relationships are such areas that can be negatively affected by mental health difficulties. These finding highlight the need for services that take into consideration the school setting for individuals with anxiety.

## **Gender Differences**

According to Beesdo et al., (2009) the female sex has been consistently shown to be a risk factor for the prevalence of anxiety disorders, as girls are twice as likely than boys to develop such a disorder and have symptoms of anxiety. Girls tend to experience two to three times the rate of anxiety disorders in childhood and adolescence compared to their male counterparts (McGuinness & Durand, 2016). Chaplin, Gillham and Seligman

(2009) summarized why adolescent girls who experience anxiety may have an increased risk of depressive symptoms in comparison to adolescent boys. They stated that there is evidence to suggest that girls report greater levels of fearfulness and anxiety disorders compared to boys, particularly in the areas associated with social relationships.

Moreover, it is argued that girls place greater focus on interpersonal relationships that consequently leads them to experience more worry than boys about relationships, failed relationships and later depressive symptoms.

While generally speaking besides the time, pace and schedule of certain hormones, males and females are physiologically similar (Marque et al., 2016). However, Marque et al., (2016) cautioned that it would be important not to overgeneralize when interpreting data between males and females as the cyclical hormone fluctuations during female sexual maturity increase the stress response and susceptibility to anxiety. As a result, sex characteristics may make a difference in their response to anxiety symptom outcome measures. Beidel and Alfano (2011) stated that it remains unclear if sex differences are a true difference or if they are a reflection of cultural or role expectations.

### **Cultural Differences**

Beidel and Alfano (2011) discussed the cross-cultural literature on childhood anxiety and state while children report similar categories of fears, they conclude that children's fears differ to some extent across different ethnic groups within the same country and that cultural factors play a role in the type and intensity of the fears experienced. It is hypothesized that the disparity between cultural and/or ethnic groups may be related to socioeconomic conditions. For instance, fear of going to the dentist

may not be considered as fearful as gang violence dependant on the culture and conditions in which a child is raised.

According to the 2011 Alberta census, approximately 18.4% of the population are visible minorities with 20.1% having a non-official mother tongue (Statistics Canada, 2015). These statistics do not take into consideration the estimated 2500-3000 Syrian refugees that have resettled in Alberta since the end of February 2016 (Government of Alberta, n.d.). Considering this cultural diversity and inevitable culture shock that many of these children may experience, Alberta schools are confronted with unique challenges.

Yohani (2013) states that schools can serve to ensure services that are particularly relevant to students with “pre-migration histories of conflicts and refugee experiences” (p. 62). Their experiences of trauma and loss are risk factors in developing academic and psychosocial difficulties (Lustig et al., 2004). Moreover there are a number of post-migration challenges including stress related to their family’s adaptation, education in an unfamiliar language, acculturation, gender role conflicts, intergenerational conflicts, discrimination and social exclusion (Pacione, Measham, & Rousseau, 2013). While refugees are not the only group that contribute to the diversity within Alberta schools, it is a growing population and therefore schools must adapt to reflect the needs of these individuals. By identifying and understanding anxiety and anxiety disorders, it is possible that school prevention and intervention programs could be better tailored to meet the specific cultural and unique needs of children who are at most risk of developing these symptoms.

### **School-Based Prevention/Intervention Programs**

Millar et al., (2013) supported the evidence that suggests schools, by default, have become the “primary mental health system for students in Canada” (p. 103). Since children spend the vast majority of their lives in school, families are increasingly looking towards schools for mental health support. Moreover, schools have the opportunity to provide the optimal environment for prevention, early identification and early intervention (Lean & Colucci, 2010). In regards to this notion, Mrazek and Haggerty (1994) outlined three main types of preventative interventions, all for the purpose of reducing the occurrence of new cases, delay onset or to decrease severity of psychosocial symptoms.

**Universal.** Universal interventions are aimed at targeting a whole population or group who are not at particular risk, such as whole-class or school-wide (Offord, 2000). Using a universal platform, no one needs to seek help on their own or are singled out (Offord, 2000). There are several advantages of universal adoption in schools such as it reduces screening difficulties, reduces stigmatization, enhances peer support, reduces psychosocial difficulties within the classroom and promotes the healthy development of all those involved (Higgins & O’Sullivan, 2015).

While there are numerous advantages, this approach also has a number of disadvantages. As pointed out by Offord (2000), universal prevention programs might be unappealing to some as it may be unnecessarily expensive as a result of significant training and resources, and it may be difficult to detect an overall effect. Moreover, Offord (2000) points out that universal approaches are sometimes over inclusive and as a result the low-risk population might perceive the program as being of little benefit to them.

**Selective.** Selective interventions are targeted towards individuals who present an elevated risk of developing a disorder due to factors such as biological, social or psychological (Higgins & O’Sullivan, 2015). Selective interventions are only offered to “at-risk” individuals, those likely to need preventative measures. Kumpfer (2001) points out that selective prevention programs are more efficient uses of resources and can offer more tailored content, thus increasing effectiveness and has the ability to measure outcomes more easily when compared to universal approaches.

When compared to universal approaches, identifying, recruiting and attracting at-risk individuals makes selective approaches more difficult in schools (Kumpher, 2001). Risk status identification also poses challenges since criteria can be too broad which can lead to negative labels or stigmatization. Overall, the main disadvantage of selective approaches is that they have the potential to overlook or fail to recognize some individuals who are “at-risk.”

**Indicative.** Indicative interventions are for those who already present with the symptoms of a particular disorder, whether they have a formal diagnosis or not. Also known as targeted prevention program, indicative interventions, as identified by Offord (2000), have two specific advantages. First, they have the potential of addressing problems early on before they become too severe and develop significant impairments. Second, they have a potential to be efficient since the resources are allocated and directed only at the high-risk group.

Indicative programs in schools have numerous associated disadvantages and challenges. First, there is the problem of stigmatization and labelling of participants. This can be especially problematic as Offord (2000) points out, if the individual is labelled

high-risk when in reality they may not be. Another challenge with this type of program is that there are difficulties with screening such as cost and commitment in terms of both money and personnel to identify those who qualify as “high-risk.” Additionally, setting a threshold and criteria to establish the presence or absence of a disorder to ensure correct identification of those who are at “high-risk.” Offord (2000) also points out that indicative programs, unless developed for a specific area, tend to ignore the social context of participants thus overlooking the potential reasons why these individuals are labeled as “high-risk.” With this being said, regardless of the type of intervention one chooses, it should meet specific standards to ensure effectiveness. While the FFL program can be adopted and implemented as a universal, selective, indicative or individual level, it must adhere to the evidence-based techniques integral to CBT.

### **CBT in Schools**

According to Miller et al., (2013), the majority of research on childhood anxiety has focused on individual CBT in clinical settings. Only relatively recently has CBT for anxiety been adapted into universal school-based group interventions (Barrett & Turner, 2001). Research regarding school-based prevention programs is still primary and inconclusive, according to Miller et al., (2013). Andrews and Wilkinson (2002) suggest that the problem is not efficacy, since CBT works; rather it is the effectiveness in routine practice that produces mixed results. They elaborate by saying that those facilitating these programs in schools may not have the training to deliver CBT or have the capacity to implement it at a universal or targeted prevention level. With this being said, it is therefore important to weigh the benefits and limitations of school-based mental health programs.

**Benefits.** Outside the family, schools are one of the most pervasive socializing contexts in a child's life and coincide with the development of the most fundamental interpersonal skills (Hymel, Schonert-Reichl, & Miller, 2006). Throughout Canada, school attendance is compulsory; therefore, schools play an important role, not only academically but also socially and emotionally. Schools are in a unique position to act as a community resource to foster the mental, emotional and social wellbeing of their students and school-based prevention/intervention programs are promising avenues to achieve this (Weare & Nind, 2011). Not only do schools offer the opportunity to reach a large number of children, they are viewed as being suitable environments for detection, early intervention and treatment of anxiety (Chinapaw et al., 2012) in that they alleviate the common barriers to mental health resources such as time, location, stigmatization, transportation and cost (Neil & Christensen, 2009). Sawyer (2011) also suggests that school-based programs provide children with the opportunity to improve their interpersonal skills, provide opportunities for role-play and encourage the sharing of emotions, allowing students to feel less threatened.

**Limitations.** School-based anxiety prevention and intervention programs have a number of limitations worth considering. According to Slavin (2008), evidence of school-based program effectiveness is often referenced to justify decisions or opinions that are already widely held or align with educational trends. While evidence-based reform has encouraged schools to move towards adopting programs founded in rigorous research (Slavin, 2008), it is paramount to ensure a program is effective in the context in which it will be implemented. The Council of Ministers of Education (n.d.) state that while similarities exist among regions, the geography, language, history, culture and unique

circumstantial background create a demand for individualized evaluations to determine program effectiveness. With this being said, prior to implementing an intervention in a school, one must also consider the context in which the program was developed.

Transferability between countries, regions and even cities may be difficult as there may not be a high degree of generalizability (Weare & Nind, 2011) so, given the high prevalence and correlated adverse effects of anxiety (Neil & Christensen, 2009) there is a great need for prevention and intervention programs to be effective in a wide variety of contexts, specifically schools for the purpose of this study.

### **Transferability of Mental Health Interventions**

According to Wang, Moss and Hiller (2005), the context in which a program operates plays an important role that influences its implementation and effectiveness. Context refers to a particular social and cultural environment as well as the political and organizational system found within that environment (Wang et al., 2005). Health education interventions are generally complex and their outcomes result from both the intervention and the context in which they were originally developed (Cambon, Minary, Riddle, & Alla, 2012). A key component of an intervention then is its transferability, reliability and validity, which can be defined as the extent to which the measured effectiveness of an applicable intervention could be achieved in another setting.

There is inherent complexity of health education interventions considering the interplay of setting, intervention and outcome. As a result, Cambon et al., (2012) stated that questioning transferability is crucial when advocating for evidence-based approaches. Recognizing whether interventions transfer effectively across contexts is an important concept when considering implementing an intervention that was developed in

a different setting. While some evaluation reports provide information for implementers to facilitate interventions in other contexts, the ability to adapt interventions to new specific settings while still remaining true to the original intervention is not inherent (Villeva et al., 2016).

Evidence based interventions are now the norm in health education settings and we must be able to understand the meaning behind them. First we must ask the question of what qualifies as evidence. McCall (2009) states that there are five crucial criteria to evaluate and judge the evidence used in programming. These criteria include: (1) the ability of the program to provide the wanted response under ideal conditions; (2) the degree to which the program replicates the wanted response under field conditions; (3) the effect size of the program must be large enough to benefit most people; (4) an analysis of which conditions are crucial and which can be modified to local circumstances; and (5) the feasibility of the program. Using these criteria we can determine the benefits of an evidence-based program in a school setting.

The intervention program that is the focal of this research study is the FRIENDS for Life (FFL) program. While the facilitator manual states that a Canadianized version of the program was adapted by several stakeholders, there is, to the author's knowledge, no evidence in the literature to support the effectiveness of these modifications in the adapted program and thus this may impact the program's transferability as compared to the original version. Although several international and three Canadian effectiveness studies have been conducted, there has been mixed results in regards to the program's overall effectiveness and in turn, its transferability within Canadian school systems. As a

result, the following research questions will guide this project's proposed methodology in an effort to test its effectiveness in an Alberta school district.

### **Research Questions**

- Is a universal school-based FFL program effective in reducing self-reported anxiety symptoms in third grade children?
- How do participants describe coping strategies over time as a result of the FFL program?

The second question aims to gain a deeper understanding of the student's coping styles. For those participating in the FFL program, this question will aid the researcher in recognizing whether coping techniques have been added to the child's repertoire.

Driscoll, Appiah-Yeboah, Salib and Rupert (2007) support this in that the collection of qualitative data can help to explain or augment survey responses.

## **Chapter Four: Proposed Methodology**

The proposed methodology associated with this project is described in this chapter. The first section provides a description and overview of the current study including the proposed research design and purpose. The next section of this chapter provides a description for the anticipated participation pool and associated recruitment procedure and sampling protocol. The third section indicates the proposed quantitative and qualitative measures to be utilized during this research project in addition to the recommended analysis procedures for each. And finally, the proposed methodology chapter concludes with a discussion regarding the associated ethical considerations of this research.

### **Current Study**

The study proposed in this project aims to evaluate the effectiveness of the FFL program in one Alberta school district. To date, there is only one published literature studies, to the author's knowledge, that have evaluated this program within the context of Alberta schools. Again, childhood anxiety is becoming increasingly prevalent (Neil and Christensen, 2009) and is associated with limitations in a child's current and long term social, emotional and occupational functioning (Chinapaw et al., 2012) and thus it is important for preventative measures to be effective in addressing this growing concern.

While the FFL program has been shown to be effective in various nations worldwide, each school community have their own needs and specific circumstances that warrant an understanding of the effectiveness of this program within individual contexts. This notion is the basis of Ecological System Theory (Bronfenbrenner, 1979), which

supports that individual development cannot be validly examined without first considering the multilayered environment in which the individual functions within. It is argued that school-based programs, which take an ecological perspective, are more effective because they recognize relevant environmental factors that are impacting the children involved (Burns, Warmbold-Brann, & Zaslofsky, 2015).

### **Research Design**

The study I am proposing uses a mixed methods approach in which concurrent triangulation of methods is utilized. Neuman (2012) stated that a partial overlap in research methods can provide complementary strengths and enhance a study to be more comprehensive. I propose that the triangulation will be used sequentially with a quantitative pre-test measure, qualitative journal entries and finishing with a post-test measure. According to Gall, Gall & Borg (2007), triangulation has the potential to confirm, cross-validate, or corroborate findings within a study.

### **Purpose**

The purpose of this project was to design a study that could assess the effectiveness of the FFL program within an Alberta school district among Grade 3 students. As part of this design, a pre- and post- outcome measure using the Spence Children's Anxiety Scale Screen (SCAS; Spence, 1998) will be used in addition to ten journal entries (See Appendix L) that were developed to evaluate the effectiveness of this program. Finally, an ethics application was created in the event of eventual implementation of this study.

### **Participants**

The proposed research participants in both the control and experimental group will be in Grade 3 during the study. This research aims to solicit approximately 200 students for both the control and experimental groups. The proposed school district used for this research has nine elementary schools with an average of two third grade classes per school. Considering an average class would have about 25 students a maximum of approximately 450 students could participate. All schools will have the identical recruitment process in the form of a letter of information (LOI; Appendix D & G), consent form (Appendix E & H) and assent form (Appendix F & I). There will be 5 basic demographic questions (Appendix J) provided with the consent form. These questions include: (1) How old is your child? (2) Please specify your child's gender. (3) What is your child's ethnicity? (4) Has your child had counselling or participated in psychoeducational groups on anxiety? (5) Has your participated in FFL in the past?

**Recruitment process.** In order for students to participate in the study a number of stakeholders must be contacted. Recruitment methods will be outlined next.

**School district.** Upon ethical approval, permission from the school district must be sought. The school district will be contacted via phone and/or email to introduce the research study. If interested, the researcher will provide the district with a LOI (Appendix B) that outlines an overview of the study, the FFL program and its linkages to the Health and Life Skills curriculum through the alignment with Alberta Education Program of Study (POS; Alberta Learning, 2002; Appendix C). The district will be asked to ensure that the FFL program have mandatory implementation across all grade three classrooms in the second year of the study. Upon approval to move forward with the study from the district, individual elementary schools will be contacted.

***Principals and teachers.*** Following the endorsement from the district, individual school principals will be contacted via phone/email. The LOI provided to the principals will again outline the study, the FFL program, linkages to the POS and finally the training process for the teachers. It will also emphasize that both the \$380 fee for the accredited 8-hour facilitator training and the \$12 activity workbook (per child) will be covered by the researcher so there will be no cost to the school. If approved, the principals will be asked to provide the names of the Grade 3 teachers within their schools. The individuals teachers will be contacted to send a LOI (Appendix D), consent form (Appendix E) and assent form (Appendix F) to their current homeroom students (control group). This process will occur again the following year with the experimental group (Appendix G, H & I).

***Parents and children.*** Upon approval from the ethics committee and school district, the parents of the Grade 3 students in both the first and second year of the study will be provided with a LOI, consent form and assent form by their homeroom teacher. Since the district is allowing the FFL program to be implemented as part of the curriculum, the parents will only be consenting to the collecting of pre-test, post-test and journal entry data collection and analysis. If the parent has consented, an informed assent will be conducted with those children prior to the pre-test questionnaire. If a parent does not consent to this, the child will simply continue to participate in the program but will not be required to do the pre-test, post-test and journal entries.

***Control group.*** In September of the 2017/2018 school year, a LOI, consent form, assent form and demographic questions will be sent home to the participant's families. The LOI that is sent home will outline the purpose of the study, the benefits of

participation, requirements of participation and both the anonymity and confidentiality owed to participants. In order to participate, the consent form would require parent/guardian signatures. If the parent or guardian consents for their child to participate they will send the signed consent form, assent form and the completed demographic questions back to the researcher. In the first week of October, the teachers will provide the students with the pre-test questionnaire. Once a week for ten weeks, the teacher will provide the students with one of the provided qualitative questions regarding coping strategies. In the tenth week (second week of December), the teacher will administer the post-test questionnaire to these students.

*Experimental group.* In September of the following year (2018/2019), a revised LOI, consent form, assent form and demographic question package will be sent home to the next group of Grade 3 student's families. The LOI that is sent home will outline the purpose of the study, the benefits of participation, requirements of participation and both the anonymity and confidentiality owed to participants. In order to participate, the consent form and assent form would require parent/guardian and child signatures. The parent/guardian would be consenting for their child to fill out the pre- and post- SCAS measure and write the journal entries. For those children who consent was approved, the pre-test will be administered in the first week of October and the program will commence within the same week. Once the aforementioned procedures are completed, the sessions will commence with participants who still express interest to participate. In the last ten minutes of each session the FFL facilitator will provide the participants with the journal prompt. Once completed, the facilitator will collect the entries and ensure that the participants have put their names on it. These journal entries will then be placed into each

individual's file for review. If a participant is unable to attend a session, their file will not be used in the final evaluation of the program. In the second week of December the teacher will provide the post-test questionnaire to these students.

## **Measures**

**Spence Children's Anxiety Scale (SCAS; Spence, 1998).** The SCAS is a child self-report measure that is designed to screen and evaluate symptoms of elevated levels of anxiety in children and adolescents, specifically separation anxiety, social phobia, obsessive-compulsive disorder, panic-agoraphobia, generalized anxiety and fear of personal injury (Spence, 1998). This questionnaire was specifically chosen for this project because of its generality, short length, self-report modality and for the ability of a teacher to administer it. It was also preferred over the Screen for Child Anxiety and Related Emotional Disorders (SCARED; Birmaher et al., 1999) because it was developed using a community sample rather than a clinical one (Whiteside & Brown, 2008) and has been consistently used throughout the FFL literature. It is a relatively brief, self-report questionnaire that is 44-items in length with a four-point Likert scale: 0 (Never), 1 (Sometimes), 2 (Often) and 3 (Always) that indicate the frequency with which participants experience each symptom. Of the 44 items, 38 of them reflect specific symptoms of anxiety while the remaining six are included to reduce negative response bias (Spence, 1998). Spence (1998) indicated that independent judges reviewed the 38 anxiety-related items and considered them to reflect the aforementioned categories of anxiety.

While the SCAS's original six-factor model (panic/agoraphobia, social phobia, separation anxiety, obsessive-compulsive problems, generalized anxiety and fears of

physical injury; Spence, 1998) would be beneficial in some research, the current proposed research is not attempting to quantify the subset of anxiety; rather it is aimed at identifying the intensity or quantity of self-reported anxiety-related symptoms since the FFL program. The FFL program aims to enhance and/or develop skills and competencies which can be utilized in the face of difficult and stressful and as a result is designed to reduce overall levels of anxiety in children rather than address specific anxiety subtypes.

Whiteside and Brown (2008) explored the utility of the child-report SCAS after identifying that it had yet to be empirically evaluated in North America to aid in examining cross-cultural investigations of childhood anxiety. Overall their results were consistent with previous studies in other countries in that it supported reliability and validity in both the child and parent report measures. They also found that internal consistency of the subscales revealed satisfactory to excellent reliabilities ranging from .75 to .84 for the child-report. While they admit that the small sample size ( $n = 85$ ) was the biggest limitation to their study, they support the use of the SCAS child-report form for screening of anxiety in North American populations.

Orgiles, Fernandez-Martinez, Guillen-Riquelme, Espada and Essau (2016) performed a systematic review of the factor structure and reliability of the SCAS and in their review they identified a number of positive aspects of this scale. First, Orgiles et al., (2016) stated that it has been widely used by researchers since it was specifically designed to assess anxiety symptoms in children and adolescents rather than a “downward extension of adult models of anxiety” (Whiteside & Brown, 2008, p. 1441). Next, it includes symptoms of the most common anxiety disorders based on the DSM-IV criteria (American Psychiatric Association, 2013b). Other positive qualities that are

highlighted were its capacity for assessing anxiety symptoms in general populations, its cost-efficiency and is a broad measure to evaluate the frequency of symptoms with its 4-point scale.

They concluded in their review that the SCAS is a reliable questionnaire with cross-cultural samples with children and adolescent populations ranging from nine to 16 years of age. Younger children can also complete the scale however Orgiles et al., (2016) highly recommended that younger children are provided with clear instruction and supervision when completing the questionnaire. While the SCAS is a scale that has been widely researched and utilized, there are a number of limitations worth noting. First, it was developed using a community sample therefore one should be cautioned when making generalizations about more clinical samples. Next, it was developed to ensure items were consistent with the DSM-IV classifications of anxiety disorders, therefore interpreters of the SCAS must take into consideration any changes or modifications that the current DSM-V outlines. Future studies should aim to determine the applicability of the SCAS to the more updated DSM-V.

***Administration and scoring.*** The SCAS screening tool will provide a pre- and post- objective outcome measure to address whether the FFL program is effective in reducing self-reported anxiety symptoms. It is recommended that the scale be administered by asking the child to read and follow the instructions printed on the form. The child is to indicate on the 4-point scale how often each of the items happens to them by circling the appropriate frequency word (Spence, 1998). Only the 38 anxiety-related items are scored with a maximum possible score of 114. Higher scores on the SCAS measure reflect greater anxiety symptomology. While there are also scoring instructions

for the subscales, which elaborate on the potential type of anxiety disorder the individual may have, the current research proposal does not necessitate this specific information.

**Journal entries.** A total of one journal entry question/prompt (Appendix L) will be provided to both the control and experimental groups once a week for ten weeks. These questions will seek to address the student's self-reported anxiety symptoms, coping mechanisms and management strategies. For the experimental group these will help to examine what they have learned throughout their participation in the FFL program. Journal entries will provide students a way to describe their experiences, using both written and illustrative means which is easily accessible, relevant and may be complementary to the data generated by the SCAS measurement (Bolger, Davis, & Rafaeli, 2003).

This is the first time, to the author's knowledge, that qualitative journal entries will be provided to participants of the FFL program in an effort to evaluate its effectiveness. As a result, a series of questions/prompts were developed for the purpose of this proposed research. Each of the questions has been generated with reference to the learning objective listed for each of the ten lesson plans in the facilitator's manual (Barrett, 2013). Educational research indicates that student learning is enhanced when instructional and assessment practices are aligned with learning objectives (Chueachot, Srisap-ard, & Srihamongkol, 2012). Educational research recognizes learning outcomes as frameworks that provide clarity, promote learner-centered approaches, incentive, guidelines and enable students to engage in self-appraisal in terms of making sense of their learning (Harden, 2007).

When students write about their experiences it helps them to achieve several objectives, one of which is enhancing their critical thinking skills (Douthit, Schaake, McCammant, Grieger, & Bormann, 2015). Biggs (2006) also states that reflective journals encourage students to (1) transform their knowledge, (2) question and reflect upon existing knowledge, (3) theorize about their experiences, and (4) apply theory to practical situations (Biggs, 2006). In addition to these, aligning questions related to learning outcomes will enable the facilitator to tailor future instruction and feedback to areas where participants are interested and/or struggling to conceptualize.

To ensure that the questions are appropriate and would complement the FFL program's learning intentions, consultation with the FRIENDS program developers will help to increase the validity of the qualitative measurements. Collaborating with experts in this field will aid in the development and improvement of these questions in an effort to adhere to the program's philosophy and overall objectives of reducing anxiety, increasing coping and life skills, building confidence and regulating emotions (The FRIENDS Programs, 2016a).

***Alignment with learning outcomes.*** The following section will illustrate how the qualitative phase of the journal prompts specifically align with the learning outcomes stated in the facilitator's manual (Barrett, 2013). The goal of the first lesson is for participants to understand that everyone feels anxious or worried from time to time and that is it normal. In this lesson, participants are introduced to three coping strategies: expressing feelings, helping others and remembering happy things. As a result, the journal prompt for this session is: "*At recess you notice someone sitting alone. How do you think this person might feel and what is something you can do to help?*" This

question integrates the notion of empathy while simultaneously enabling the participant to think of strategies that they could practically use in their everyday lives.

In session two, participants are taught ways to recognize their feelings and feelings of others by focusing on body language and facial expression. Participants also learn how feelings can have a range of triggers and that expressing our emotions is important. Therefore, the journal prompt for lesson two includes a diagram of a face that is expressing an emotion (See Appendix L) along with the following prompt: *“Tell me about a time in your life when you felt like this picture.”* This question supports the participants’ recognition of emotion through facial expression in addition to relating it their own experiences.

In session three, participants are introduced to bodily signs of anxiety/worry. Additionally, they learn some relaxation techniques that can be used to calm and mediate these somatic symptoms. The question for this session is *“Brainstorm some ways that you can help your body relax?”* This question has a twofold purpose; first, it may help the participant’s to consolidate the relaxation strategies they just learned and second, it provides an opportunity for them to identify their own relaxation or calming techniques that were not directly taught through the program, but may be effective for them.

Session four of the FFL program aims to teach participants the concept of self-talk and how this is related to coping strategies. Participants are introduced to ways in which they can change their negative thoughts into more positive, or helpful thoughts. The journal entry for session four is as follows: *Instead of saying “I’m dumb, I will never pass the test,” what is a more positive thought you could tell yourself?* This question encourages students in the experimental group to think of the vocabulary that is taught in

this lesson (i.e. green/red thought) and asks the participants to apply this new knowledge to a familiar scenario.

Session five builds on session four by further encouraging participants to change unhelpful thoughts into helpful thoughts. As a result, the journal prompt will provide students with a vignette (See Appendix L) of a child who is experiencing unhelpful thoughts. Participants will be asked to think of various examples to help this child change their unhelpful thoughts into helpful ones. This question may help to consolidate this understanding while at the same time building their resiliency and empathy skills.

The learning objective of lesson six is to introduce participants to the Coping Step Plan, which breaks down difficult situations into more manageable steps. In this journal entry, students are asked to think of something in their life that is currently challenging for them and brainstorm ways they are or could cope with that problem. It is hypothesized that the experimental group will utilize the Coping Step Plan that was introduced to them to break down the situation into smaller steps in an effort to think of ways to cope with the situation.

For lesson seven, participants learn about problem solving skills. They are introduced to how social supports and role models can be helpful in difficult situations and have the opportunity to identify those in their own support network. For this entry, participants will be asked to “*Think about a time when their support network was helpful and draw (and label) this situation.*” Since children’s support networks will vary, drawing allows them the opportunity to creatively illustrate who or what is in their personal network. It also enables participants to associate their network with prior

positive experiences that would likely encourage them to continue to seek support from them in the future.

Lesson eight continues to teach about problem solving and exploring solutions. This session introduces the 6-Block Problem Solving Plan, which aims to help participants find solutions to problems. The journal entry for this session asks students to brainstorm ways that they could solve the presented problem in the provided vignette. It is predicted that students who participated in the FFL program will incorporate the use of the 6-Block Problem Solving Plan to help them conceptualize a solution to the problem.

The objective of lesson nine is for participants to reward themselves for trying their best and putting in effort. It primarily focuses on practicing skills and positively reinforcing that facing challenging situations builds confidence, especially when they are able to effectively cope. As a result, the journal entry for this session asks students to *“Brainstorm ways in which they would like to get rewarded for their hard work.”* It is predicted that the students who participated in the FFL program will incorporate some of the positive and healthy rewards discussed in session nine.

The final session of the FFL program aims to review the skills they learned and celebrate their journey throughout the last ten weeks in addition to thinking about ways to apply their newly learned skills and mindsets. The journal entry for session ten asks students to self-reflect on ways that they could create a more positive and supportive environments both within and outside their school. Specifically, it asks, *“What are some ways that you can give back or things you could teach to your peers, school or community?”* It is anticipated that the students from the control group will incorporate the terminology, skills or perspectives that were alluded to during the program.

Finally, to gauge how participants in the control group felt about their participation in the program a number of questions are posed for the journal entry. These questions may offer constructive feedback to evaluative and make revisions that are relevant for this context.

- Tell me one thing you enjoyed about being part of the FRIENDS group.
- What was something that was not enjoyable?
- How did the FRIENDS program help you?
- What are some ways that the program could be change to make it more enjoyable to you?

### **Methods of Analysis**

**SCAS.** Taking a pre- and post- self-reported measure of anxiety-related symptoms will provide data to determine if children in the experimental group reported a decrease in symptoms over the course of 10-sessions in comparison to the control group. The method of analysis is a two-group pre-test/post-test design that involves three steps: (1) administration of the pre-test, (2) implementation of the experimental treatment, and (3) administration of the post-test (Gall, Gall & Borg, 2007). The effects of the treatment are thus determined by comparing the pre-test and the post-test data of the control versus the experimental groups. The statistical analysis that is recommended for this type of design is a t-test to determine correlated means. This test determines whether the difference between the pre-test and the post-test is statistically significant.

To conclude if the FFL program is effective in reducing the self-reported anxiety symptoms of this group, a single subject design that compares the baseline phase (pre-

intervention) to the intervention phase (post-test) is necessitated (Odom, Brown, Frey, Karasu, Smith-Canter, & Strain, 2003). Consistent improvements on outcome measures compared to baseline may indicate that the intervention was effective for that individual. If this is replicated across the sample of individuals participating in the FFL program, it may support whether or not this intervention is effective in this setting for the participants involved.

**Journal entries.** In the qualitative phase of this study, the use of reflective student journal entries will help to expand upon and identify themes of their experiences and their overall learning as a result of the program. The goal of using journal entries is to provide additional insight and aid in interpreting the quantitative data from the SCAS screener by adding the written reflections, perceptions and experiences of the participants. Using Patton's (2002) method of Open Coding, journal entries will be analyzed over time to identify changes in terminology used to describe student understanding related to coping and managing with anxiety. Since the journal entries are not expected to be lengthy, line-by-line coding whereby each word is individually analyzed (Strauss & Corbin, 1990) will be utilized throughout the interpretation of the journals. The student's writing will be examined for any evidence of changes in tone, language, terminology and coping strategies. This process will yield tentative labels for the data to eventually be able to group them into conceptual categories to describe the children's experiences in relation to the skills and coping strategies learned throughout the lessons.

### **Ethical Considerations for the Proposed Methodology**

In the companion manual to the Canadian Code of Ethics for Psychologists, Sinclair and Pettifor (2001) outline four ethical principles: (1) Respect for the Dignity of Persons; (2) Responsible Caring; (3) Integrity in Relationships; and (4) Responsibility to Society. These principles encompass a number of relevant topics that have been used to guide the methodology and analysis of the data in this proposed research. Such topics include general respect, general rights, informed consent, freedom of consent, protection of vulnerable persons, privacy and confidentiality to name a few. These ethical considerations have been outlined in the letter of information, consent forms and assent forms for both the control and experimental groups.

The first phase of proposed for this study is to gain ethical clearance from the University of Lethbridge Human Subjects Research Committee. This final project includes a proposed ethics application (Appendix A), which can be utilized if this research were to be implemented. The application includes all areas required by the University of Lethbridge Human Subjects Research Committee for approval for implementation with children subjects.

### **Chapter Summary**

This chapter concluded this research proposal by documenting the research design, purpose participant pool, recruitment process, proposed measures including information regarding their administration, scoring and analysis. In addition, the researcher described and supported the qualitative journal prompts as they aligned with the FFL lesson's objectives. Further, this chapter concluded with the ethical considerations associated with the proposed methodology should it be administered in the real world.



## **Chapter Five: Strengths and Limitations**

The intent behind this final project was to develop a research proposal that could enable researchers to replicate past findings of effectiveness of the FFL program. This research distinguishes itself from previous studies performed in Canada in that it incorporates a mixed-methods randomized control design. Moreover, qualitative journal prompts were developed for the purpose of this proposal to augment the data received via the questionnaires. Inherent to any study, this proposal has its own strengths and limitations that provides new insight and has the potential to inspire further research in this area. Thus, the final chapter of this final project contains a discussion of the associated strengths, limitations and future research possibilities.

### **Project Strengths**

There are a number of strengths within this proposed research design. A current literature review encompassing the themes of childhood anxiety, program effectiveness and transferability and the FRIENDS for Life program provide the foundation for the suggested method and implementation of this project. The SCAS questionnaire is an evidence-based and widely recognized screener for childhood anxiety that provides a strong basis for identifying pre- and post-symptoms of anxiety for the project's participants. The qualitative journal prompts have been specifically developed for the purpose of this proposed research and were aligned with each lesson's learning objectives. This mixed method and randomized controlled design has the potential to provide a multi-dimensional understanding of the experiences and learning as a result of the FFL program; something that has yet to be performed in the Canadian FFL literature. Additionally, participants are asked to identify any external treatment or psychoeducation

to help rule out any non-specific effects that could contribute to a falsely positive effect of the FFL program.

Another strength of this project is that it holds the potential for increasing mental health awareness and preventative programming in schools. It will introduce school districts to a relatively practical and cost-efficient program that aligns with the curriculum enabling children access to a much-needed mental health resource if implemented in their school. In addition, the added benefit, if implemented, a number of teachers will be trained as FFL facilitators thus enabling the program to continue to benefit children for years to come.

Parents, teachers and school administration could benefit from the data in that they may gain a greater sense of the internalized emotions and symptoms that the children and students they interact with are faced with. This may create more supportive and caring environments that will further enable these children to develop and learn healthy ways of coping with stressful scenarios. The results derived from this study could also assist educational policy makers to consider adopting more social-emotional programming at other grade levels, even if it not specifically the FFL program.

### **Project Limitations**

A number of limitations were alluded to throughout the conceptualization and development of this proposed research study. First, this project advises that the FFL program be implemented as a universal school intervention. Inherent with universal programs are disadvantages of having a higher cost and it may be over-inclusive and as a result not be as relevant to some participants.

Another limitation of this proposal is that the data that would be collected is solely based on children's self-report of anxiety symptoms. This approach is limited in that it does not incorporate the perspectives of parents or teachers. Anxiety is considered an internalized disorder therefore others may not easily observe symptoms and as a result parent or teacher reports may have added confounding data in relation to the child's self-report. With this being said, children may not always be as accurate at recognizing their symptoms thus future research could examine this dimension. Additionally, the qualitative journal entries lack validity in that they were developed solely for the purpose of this proposed project. Future researchers should attempt to discern the validity and reliability of these questions by consulting experts in the field.

Third, the proposed participant pool also can be perceived as a limitation in this study. The grade level, geographic location and overall total number of students are limiting factors associated with this research in that it would be difficult to generalize the findings to a larger group. One could not accurately judge the effectiveness of the program using only Grade 3 students when the program can be utilized for children between the ages of 8 and eleven. Moreover, the proposed participants, while they may attend different schools, all reside in the same city. The sample size also challenges the researchers ability to conclude the effectiveness of the program and theorize its transferability across the province of Alberta.

### **Future Research Possibilities**

While a number of countries worldwide have demonstrated that the program is effective, this proposed research study aims to replicate previous effectiveness studies in another school district in Alberta. It is understood that communities, provinces and even

countries can drastically vary in their history, culture and needs. This warrants the understanding of whether interventions, specifically FFL, can be equally effective in all contexts in which it is implemented. This proposed research provides a platform for researchers to gauge the relative effectiveness of FFL in specific communities to ensure its validity and reliability.

If it is determined that the FFL program has the potential to be equally applicable in another Alberta context, future studies could incorporate larger sample sizes and recruit assistance with analyzing the qualitative aspects proposed in this project. Another possibility is designing a study that enables the researcher to compare the FFL program to another evidence-based anxiety prevention program to compare whether change in anxiety symptomology can be specifically attributed to participation in the FFL program. Future studies could also incorporate more grade levels to examine the program's effectiveness with different developmental levels. Moreover, it would be important for studies to investigate program fidelity to ensure the program is being implemented consistently throughout the schools and between classes. Finally, future research could include long term follow ups with students to investigate if any improvements were maintained over time.

Conclusively, this proposed research study has provided a framework for researchers who wish to evaluate the FFL program within specific contexts. It has the potential to generate significant insights into the subjective experiences and learning of participants with the addition of the qualitative journal entries, something that has yet to be included in the FFL literature. Dissemination of results has potential benefit to the FRIENDS Program developers, school administration and policy, teachers, community

services, families and most importantly, future children who participate in the FFL program.

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**Appendix A: Application for Ethical Review of Human Research Faculty of  
Education**

**UNIVERSITY OF LETHBRIDGE  
APPLICATION FOR ETHICAL REVIEW OF HUMAN PARTICIPANT  
RESEARCH**

**SECTION A: GENERAL** - *This information is collected under the authority of the Alberta Post-secondary Learning Act and will be used for administrative purposes associated with the ethical review of your human participant research protocol. It will be treated in accordance with the privacy protection provisions of Part 2 of the Alberta Freedom of Information and Protection of Privacy Act (<http://foip.alberta.ca/legislation/act/index.cfm>). Questions about the collection, use or disclosure of your personal information collected on this form can be directed to Susan Entz, Ethics Officer, Office of Research Ethics, University of Lethbridge, Lethbridge, Alberta T1K 3M4, Phone: (403) 329-2747 and Email: [susan.entz@uleth.ca](mailto:susan.entz@uleth.ca).*

**A1. Researcher/Applicant Information**

Name: Caitlin LaRose  
 Department: Faculty of Education  
 Telephone Number: 780-XXX-XXXX  
 Email address: caitlin.larose@uleth.ca

Are you:       Faculty     Staff       Graduate Student  
                   Undergraduate Student

**A3. Student Thesis/Project Committee**

- a) Is this research for an undergraduate or graduate thesis/project?  Yes       No
- b) If yes, please provide the names, departments and phone numbers of your Committee members.

Name:	Department:	Telephone:
1. Dr. Chris Mattatall	Education	403-XXX-XXXX
2. Dr. Dawn McBride	Education	403-XXX-XXXX

**A4. Title of Project:**

Indicate the title of your project. If this project is funded, the title should be the same as the title of your funded research.

A Proposal to Study the Effectiveness of the FRIENDS for Life Program

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**A5. Location of Research**

a) Indicate where the research will be conducted.

The research will be conducted in an elementary schools in St. Albert, AB.

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**A6. Start/End Dates of Research Involving Human Participants**

Please state the start and end dates of the research involving human participants. **NOTE: Research involving human participants cannot begin until Human Subject Research Committee approval has been received.**

Start date (01/10/2017):

End date (25/12/2019):

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**A7. Funding**

a) Is the project funded?  Yes  No

Funding approved – please specify source(s) :

- 1.
- 2.
- 3.

Funding pending – please specify source(s):

- 1.
- 2.
- 3.

b) Is the project part of a course?  Yes  No

Specify the course number and title: EDUC 6022: Counselling Psychology (Project)

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**SECTION B: DETAILS ABOUT THE PROJECT**

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**B1. Purpose of Project**

Provide a brief and clear statement of the context and objectives of the project, including the key questions and/or hypotheses of the project (in two pages or less).

The purpose of this project was to design a study that could assess the effectiveness of the FFL program within an Alberta school district among Grade 3 students. As part of this design, a pre- and post- outcome measure using the Spence Children's Anxiety Scale (SCAS) and ten journal entries were created to evaluate the effectiveness of this program. The key questions this research aims to address are:

- Is a universal school-based FFL program effective in reducing self-reported anxiety symptoms in third grade children?
- How do participants describe coping strategies over time as a result of the FFL program?

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**B2. Description of Participants**

a) Indicate who you will recruit as potential participants in this study (e.g. undergraduates, school children, seniors) including any inclusion or exclusion criteria (e.g. over 65 years of age, self-identified as gay, speaks Blackfoot, speaks English), and the number of participants required.

The proposed participants in this research study are Grade 3 students attending elementary schools in St. Albert, AB. If all schools agree to participate and consent is provided from parents/guardians the maximum number of students that could participate would be approximately 450-500.

b) If the participants or facilities will be offered compensation or credit for participating in the research, provide details. Specify the amount, what the compensation is for, and how payment will be determined for participants who do not complete the study.

N/A

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**B3. Recruitment of Participants**

a) Briefly describe how participants will be recruited and who will do the recruiting. Researchers should avoid recruiting their own students. If this is unavoidable,

researchers should provide the name of a research assistant, not associated with the course, who will do the recruiting and obtain consent when the researcher is not present.

If posters, newspaper advertisements, radio announcements or letters of invitation are being used, append these to this application.

Participants will be recruited as whole classes and identified by the school district and individual schools. Letters of information and consent forms will be sent home by the Grade 3 homeroom teachers to identify children who will participate in the data collection.

b) When and how will people be informed of the right to withdraw from the study? What procedures will be followed for people who wish to withdraw at any point during the study? What happens to the information contributed to the point of withdrawal?

The consent form will outline the procedure if parents wish to withdraw their child's data from the study. At any point during the study and up to two months after the study has ceased a child's data can be removed. After a request for withdrawal of a child's data, their entire file including pre-test, post-test and journal entries will not be included in the final report.

c) Indicate how participants can obtain feedback on the research findings.

If interested in obtaining feedback on the final research findings, the letter of information will list my contact information.

#### **B4. Description of Research Procedures**

Provide a summary of the design and procedures of the research. Provide details of data collection, and time commitment for the participants, etc. NOTE: all study measures (e.g. questionnaires, interview guides, surveys, rating scales, etc.) must be appended to this application. If the procedures include a blind, indicate under what conditions the code will be broken, what provisions have been made for this occurrence, and who will have the code.

The study I am proposing uses a mixed methods approach in which concurrent triangulation of methods is utilized. Partial overlap in research methods can provide complementary strengths and enhance a study to be more comprehensive. I propose that the triangulation will be used sequentially with a quantitative pre-test measure, qualitative journal entries and finishing with a post-test measure. Triangulation has the potential to confirm, cross-validate, or corroborate findings within a study. The following table illustrates the procedure of this project:

2017/2018 (Control Group)	2018/2019 (Experimental Group)
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<b>Jan. - April</b>	Ethics approval	<b>Jan.-Aug.</b>	Online 8-hour facilitator for teachers
<b>April - June</b>	Letter of information to school district, approval to implement study in schools and contact with individual principals and teachers.	<b>Sept.</b>	Letter of information, consent form and demographic questions sent home to children's families.
<b>Sept.</b>	Letter of information, consent form and demographic questions sent home to children's families.	<b>Oct.</b>	<ul style="list-style-type: none"> <li>• SCAS pre-test questionnaire administered with the students.</li> <li>• Friends for Life lessons #1, #2, #3 and #4</li> <li>• Journal entries #1, #2, #3 and #4</li> </ul>
<b>Oct.</b>	<ul style="list-style-type: none"> <li>• SCAS pre-test questionnaire administered with the students.</li> <li>• Journal entries #1, #2, #3 and #4</li> </ul>	<b>Nov.</b>	<ul style="list-style-type: none"> <li>• Friends for Life lessons #5, #6, #7 and #8</li> <li>• Journal entries #5, #6, #7 and #8</li> </ul>
<b>Nov.</b>	Journal entries #5, #6, #7 and #8	<b>Dec.</b>	<ul style="list-style-type: none"> <li>• Friends for Life lessons #9 and #10</li> <li>• Journal entries #9 and #10</li> <li>• SCAS post-test questionnaire</li> </ul>
<b>Dec.</b>	<ul style="list-style-type: none"> <li>• Journal entries #9 and #10</li> <li>• SCAS post-test questionnaire</li> </ul>		

## B5. Privacy Protection

The next set of questions deals with anonymity and confidentiality. Refer to the brief descriptions below to assist you in answering these questions.

**a) *Anonymity refers to the protection of the identity of participants. Anonymity protection can be provided along a continuum, from “complete” to “no” protection, where complete protection means that no identifying information will be collected. We remind applicants that university researchers should treat any personal information in accordance with the privacy protection provisions of Part 2 of the Alberta Freedom of Information and Protection of Privacy Act (<http://foip.alberta.ca/legislation/act/index.cfm>). If you have any questions about the collection, use, or disclosure of personal information under the Act, please contact the FOIP Coordinator, The University of Lethbridge, 4401 University Drive, Lethbridge, Alberta T1K 3M4, Email: [foip@uleth.ca](mailto:foip@uleth.ca).***

1. Will the anonymity of the participants be protected?

Yes (completely)

Yes (partially)

No

2. If “yes”, explain how anonymity will be protected, and describe how this will be explained in the consent process.

No identifying information is asked of participants throughout the course of the research. Participant’s responses on the questionnaire and journal entries will be labeled with numerical numbers to ensure their identifies are protected. Participants and their parents are informed of this in the letter of information and consent/assent.

3. If “no”, justify why loss of anonymity is required, and describe how this will be explained in the consent process.

*b) Confidentiality refers to the protection, access, control and security of the data and personal information.*

Confidentiality or non-disclosure agreements are recommended for all the individuals involved with the project (e.g. transcriptionists, research assistants, co-investigators, etc.).

1. How will confidentiality be protected and how will this be explained in the consent process? Specify which personnel will have access to the listing of names and study ID numbers as well as other study information collected (use job titles rather than individual names.) Provide details on the location, manner of storage, and the proposed retention period of the information collected.

Teachers who facilitate the program and research assistants will sign a non-disclosure agreement to ensure confidentiality. Additionally, all data collected will be stored in a locked filing cabinet. Participants and their parents are informed of this in the letter of information and consent/assent.

---

## B6. Potential Risks and Benefits

<b>To facilitate Human Subject Research Committee review and to determine whether the study involves more than minimal risk, please respond to the following questions. Does this project involve...</b>	<b>Check those that apply</b>
1. Collection of data through invasive clinical procedures that are not required for normal patient care.	
2. Collection of data through noninvasive clinical procedures involving imaging or microwaves that are not required for normal patient care.	
3. Collection, use, or disclosure of health information or biological samples where the researcher is requesting that the requirement for informed consent be waived.	
4. Any procedures involving deception or incomplete disclosure of the nature of the research for purposes of informed consent.	
5. Any possibility that a breach of confidentiality could place participants at risk of Criminal or civil liability or be damaging to participants' financial standing, Employability or reputation.	
6. Research questions or procedures that might be expected to cause participant psychological distress, discomfort or anxiety beyond what a reasonable person might expect in day to day social interactions (e.g., questions that raise painful memories or unresolved emotional issues).	X
7. Research questions that involve sensitive issues (e.g. sexual orientation or practices, etc.).	
8. Investigations in which there is a previous or existing relationship between the investigator and participants (e.g., manager/employee, therapist/client, teacher/student).	
9. Investigations in which there is a conflict of interest between an investigator and the sponsor of the investigation.	
10. Any other non-therapeutic risks that arise from procedures not directly related to patient care.	

a) Outline any risks of potential physical or emotional harm or discomfort to the participants, and describe how the anticipated benefits outweigh the potential risks.

During the qualitative phase of this research, some questions may trigger negative memories or particularly worrisome thoughts. The program under investigation in this research aims to help children develop skills to cope with these types of situations. Therefore in this case the limitation of the possibly causing discomfort is outweighed by the potential of providing students with long-term coping strategies. For those not participating in the program (control group), the researcher will inform the school counsellor of this to ensure the wellbeing of the children is protected.

- b) Indicate the steps taken to inform participants of the possible consequences of releasing information in the public domain, and describe how participants will be given an opportunity to review material before it is released.

The participants and their parents will be informed of this in the consent and assent forms. If they wish to review the data they can contact the researcher directly.

- c) Outline the exit strategy for termination of the study. Some types of research involve intense or lengthy contact between a researcher and the study participant(s), which may result in a close personal relationship, especially if the research itself involves matters close to the heart of participants. For this section, applicants should consider the possibility that a strategy may be required for participants who have difficulty in disengaging from the project after their role is completed or the project has terminated. If this does not apply to your research, please indicate n/a. If the research involves vulnerable populations, carefully clarify the boundaries between the researcher and participants.

N/A

## **B7. Obtaining Consent**

Advise the Committee how informed consent will be obtained. The Tri-Council Policy Statement ensures that informed consent be obtained in writing from all participants or, when appropriate from parents or legal guardians, unless there is a good reason for not doing so. If a consent form will be used, attach copies for the Committee. The Human Participant Research - Sample Letter of Consent is available from the Office of Research Ethics or our web site under Certification at:

[http://www.uleth.ca/rch/funding/online\\_forms.cfm](http://www.uleth.ca/rch/funding/online_forms.cfm). Please ensure that the reading level of the consent form is appropriate to the population involved.

- a) Clearly detail who will be obtaining consent and the procedures for doing so. If appropriate, specify whether participants will be randomly assigned to groups before or after consent has been attained.

Once the classrooms are identified the homeroom teacher will send a letter of information, consent and assent form home.

- b) If the participants are not able/competent to give fully informed consent (cognitive impairment, age, etc.), or if there are significant power differences in operation (professor/student, employer/employee, political or economic minorities, etc.), please

specify, and describe steps you will take to obtain free and informed consent. If participants are not competent to consent, specify who will consent on their behalf. Parents/guardians will provide consent for their children. An assent form will also be sent home for parents to discuss with their child.

c) Do any of the procedures include the use of deception or partial disclosure of information to participants? If yes, provide a rationale for the deception or partial disclosure. Describe the procedures for debriefing the participants.

N/A

### **B8. Continuing Review**

Propose a process for continuing review if the research is ongoing. Continuing review should consist of, at least, the submission of a succinct annual status report. Notify the Committee when the research concludes.

N/A

**The protection of human participants will be assured in accordance with the Tri-Council Policy Statement or with other guidelines if these have been agreed upon as more appropriate.**

\_\_\_\_\_  
Signature of Researcher/Applicant

\_\_\_\_\_  
Date

**When the Researcher/Applicant is a student, the supervisor must sign the following statement:**

**“I have reviewed this application and I deem it ready to submit to the Human Subject Research Committee for review.”**

\_\_\_\_\_  
Signature of Supervisor

\_\_\_\_\_  
Date

(Revised December 2, 2015)

## **Appendix B: Letter of Information for School District & Individual Schools**

**Caitlin LaRose**  
**University of Lethbridge**  
**XXX-XXX-XXXX**  
**caitlin.larose@uleth.ca**

To Whom It May Concern,

My name is Caitlin LaRose of the Education Department at the University of Lethbridge under the supervision of Dr. Chris Mattatall. I am contacting you to see if your district would be interested in participating in a study to evaluate the effectiveness of the FRIENDS for Life anxiety prevention and resilience building program. The purpose of this research is to gain a better understanding of children's anxiety levels and coping skills as a result of participating in the program.

The research is proposed to span over two years with two groups of Grade 3 students. In the first year (2017/2018) students would partake in two 44-item questionnaires and 10 journal entries however they would not participate in the FRIENDS for Life program. The following year (2018/2019) students would again participate in both the questionnaire and journal entries while also taking part in the program.

The FRIENDS for Life program has been implemented in school districts across British Columbia and in a number of schools in Alberta. It has already been aligned with the Alberta Program of Study and therefore we propose that it could be used to supplement the Health and Life Skills curriculum that is already being taught in your school. This research will require a total of 1 hour of your student's time during the school day for 10 weeks. An accredited individual must facilitate the program and we would gladly cover the cost of your Grade 3 teachers to become trained in addition to the costs associated with the activity booklets for students.

If you are interested in helping us with this research and implementing this evidence-based program in your schools, please contact Caitlin LaRose using the information listed at the top of this letter. This research study has been reviewed for ethical acceptability and approved by the University of Lethbridge Human Subject Research Committee.

If you have any questions regarding the details of this study, please do not hesitate to ask. I look forward to hearing from you!

Caitlin LaRose

**Appendix C: Linkages of the Friends for Life Program with the Grade 3 Health &  
Life Skills Alberta Program of Study**

<b>Grade 3: Health and Life Skills</b>										
	<b>L 1</b>	<b>L 2</b>	<b>L 3</b>	<b>L 4</b>	<b>L 5</b>	<b>L 6</b>	<b>L 7</b>	<b>L 8</b>	<b>L 9</b>	<b>L 10</b>
<b>W 3.1 analyze the factors that affect choices for physical activity</b>		X	X	X	X		X			X
<b>W 3.7 identify strategies to avoid being bullied in different case scenarios</b>		X			X					
<b>W 3.8 employ practices that provide safety for self and others</b>	X					X		X	X	
<b>R 3.1 recognize the effects of sharing positive feelings on self and others</b>	X	X				X	X			
<b>R 3.2 demonstrate safe and appropriate ways for sharing and/or expressing feelings through words and behaviour; e.g., demonstrate good manners when expressing feelings</b>			X	X	X	X	X	X	X	X
<b>R 3.3 develop, with guidance, strategies to deal with stress/ change</b>		X	X	X	X	X	X	X	X	X
<b>R 3.4 develop, with guidance, effective communication skills and strategies to express feelings</b>	X	X	X	X	X	X	X	X	X	X
<b>R 3.5 develop strategies to build and enhance friendships</b>						X		X		X
<b>R 3.6 demonstrate inclusive behaviours regardless of individual differences or circumstances</b>	X			X	X	X	X	X	X	X

<b>R 3.7 examine the effects of conflict on relationships</b>	X		X			X	X			
<b>R 3.8 develop skills to work cooperatively in a group</b>	X	X	X	X	X	X	X	X	X	X
<b>R 3.9 encourage fair play through modelling;</b>						X				

## **Appendix D: Letter of Information for Parents or Guardians (Control Group)**

**Caitlin LaRose**  
**University of Lethbridge**  
**XXX-XXX-XXXX**  
**[caitlin.larose@uleth.ca](mailto:caitlin.larose@uleth.ca)**

Dear Parents or Guardians,

Your child is being invited to participate in a study entitled “A Proposal to Study the Effectiveness of the FRIENDS for Life Program” that is being conducted by Caitlin LaRose. Caitlin LaRose is a Graduate student of Counselling Psychology in the Faculty of Education at the University of Lethbridge and you may contact her if you have further questions by phone (780-XXX-XXXX) or email ([caitlin.larose@uleth.ca](mailto:caitlin.larose@uleth.ca)).

The purpose of this research project is to replicate past findings that show the effectiveness of the resilience-building and anxiety prevention program called FRIENDS for Life. Research of this type is important because childhood anxiety and anxiety disorders are becoming more common therefore it is essential to identify programs that can effectively prevent the negative symptoms of anxiety.

Your child is being asked to participate in this study because they are in Grade 3. During the 2017/2018 school year all Grade 3 students in X district are being asked to partake in the first phase of this study to help identify if this program is effective with this age group. If you agree to permit your child to participate in this research, his/her participation will include answering two anonymous 44-item questionnaires and 10 written journal entries regarding their anxieties and current coping skills.

If you agree to allow your child to participate, please sign and return the attached sheets to your child’s homeroom teacher:

1. Consent for participation
2. Assent for child participation
3. Demographic questions

If you have any questions or concerns, please do not hesitate to contact me.

Caitlin LaRose

## **Appendix E: Parent or Guardian Consent for Child Participation (Control Group)**

**Caitlin LaRose**  
**University of Lethbridge**  
**XXX-XXX-XXXX**  
**[caitlin.larose@uleth.ca](mailto:caitlin.larose@uleth.ca)**

Dear Parents or Guardians,

My name is Caitlin LaRose of the Education Department at the University of Lethbridge under the supervision of Dr. Chris Mattatall. Your child is being invited to participate in a research study looking at the effectiveness of the FRIENDS for Life anxiety prevention and resilience building program. The purpose of this research is to gain a better understanding of children's anxiety levels and coping skills without participating in this program.

This research will require a total of 1 hour of your child's time during the school day. During this time, your child will partake in two 44-item questionnaires and 10 journal entries. The only anticipated risks or a discomfort related to this research is that your child will be asked to explain their worries and how they cope with them. If you would like, I can connect your child with the school counsellor or outside resources if they need. By participating in this research, your child will help me learn more about children's anxieties and their current coping techniques.

Several steps will be taken to protect your child's anonymity and confidentiality. The questionnaires will be kept in a filing cabinet in my office and only I will access to them. Additionally the journal entries will be organized using numerical codes therefore your child's name will not be associated with it. These documents will be retained for 5 years and then confidentially shredded.

Participation in this research is completely voluntary. Your child may choose to not participate. You may also withdraw your child from the study at any time for any reason simply by notifying me. If your child stops participating, it will not be possible to remove his or her data as there will be no names linked to the information that has been collected.

The results from this study will be presented in a Master's project, and in other scholarly presentations and publications. At no time, however, will your child's name be used or any identifying information revealed. If you wish to receive a copy of the results from this study, you may contact me at [caitlin.larose@uleth.ca](mailto:caitlin.larose@uleth.ca) or the contact information provided above.

If you require any additional information about this study, please call me at 403-123-4567 or email me [caitlin.larose@uleth.ca](mailto:caitlin.larose@uleth.ca), or you may also contact my supervisor, Dr. Chris Mattatall, at 403-XXX-XXXX or [chris.mattatall@uleth.ca](mailto:chris.mattatall@uleth.ca). Questions regarding your child's rights as a participant in this research may be addressed to the Office of Research Ethics, University of Lethbridge (Phone: 403-329-2747 or Email: [research.services@uleth.ca](mailto:research.services@uleth.ca)).

This research study has been reviewed for ethical acceptability and approved by the University of Lethbridge Human Subject Research Committee.

A copy of this consent form will be given to you to keep for your records and reference.

---

I have read (or have been read) the above information regarding this research study on children's use of mobile technologies, and consent for my child to participate in this study.

\_\_\_\_\_ (Printed Name of Child Participant)

\_\_\_\_\_ (Printed Name of Parent/Guardian)

\_\_\_\_\_ (Signature of Parent/Guardian)

\_\_\_\_\_ (Date)

\_\_\_\_\_ (Printed Name of Researcher)

\_\_\_\_\_ (Signature of Researcher)

\_\_\_\_\_ (Date)

## Appendix F: Child Assent for Participation (Control Group)

Caitlin LaRose  
University of Lethbridge  
XXX-XXX-XXXX  
caitlin.larose@uleth.ca

### ***Why are you here?***

My name is Caitlin LaRose from the University of Lethbridge. I want to see if you would like to be in my study. I want to learn about things that you worry about and ways that you help cope or deal with the things that scare or worry you.

### ***What is expected of you?***

If you agree to be in my study, you will answer questions about the different things that may worry you and what happens when you get nervous. This will take about 15 minutes. There are also 10 short written questions that you will answer once a week till December. These questions may remind you of times in the past when you were scared or make you think of things that you are nervous for in the future. They may also help you think of good ways of coping with these things.

### ***Who will know you are in my study?***

Other students in your class will also be part of the study; therefore some of your classmates might know and your teacher. But I will be the only one who will see your answers. I will put your answers with the answers of others who are in my study so no one can tell what answers came from you. When I tell other people about my research, I will not use your name.

### ***Where will the study take place?***

The study will take place at school in your regular classroom.

### ***Do I have to be in the study?***

No. Your parents or guardian have to agree for you to be in my study and then you get to decide if you want to be in my study. If you don't want to be in my study, no one will be mad at you. If you want to be in the study and then change your mind later, you can do that too. You can stop being in my study at any time by telling me.

### ***Will the study help me?***

The study will not help you directly but you will help me understand the things that worry you and how you deal with those things.

### ***What if I have questions?***

You can ask me questions at any time. My phone number and email address are at the top of this page. You can also ask your parents or guardian if you have any questions because the study has been explained to them. If you want, you can also contact the Office of Research Ethics at the University of Lethbridge at 403-329-2747 or [research.services@uleth.ca](mailto:research.services@uleth.ca) to ask questions.

I will give you a copy of this form in case you want to ask questions later.

**Agreement**

I have decided to be in the study even though I know that I don't have to do it. Caitlin LaRose has answered all my questions.

---

Printed Name of Participant

---

Date

---

Signature of Participant

---

Date

---

Printed Name of Researcher

---

Date

---

Signature of Researcher

---

Date

## **Appendix G: Letter of Information for Parents or Guardians (Experimental Group)**

**Caitlin LaRose**  
**University of Lethbridge**  
**XXX-XXX-XXXX**  
**[caitlin.larose@uleth.ca](mailto:caitlin.larose@uleth.ca)**

Dear Parents or Guardians,

Your child is being invited to participate in a study entitled “A Proposal to Study the Effectiveness of the FRIENDS for Life Program” that is being conducted by Caitlin LaRose. Caitlin LaRose is a Graduate student of Counselling Psychology in the Faculty of Education at the University of Lethbridge and you may contact her if you have further questions by phone (780-XXX-XXXX) or email ([caitlin.larose@uleth.ca](mailto:caitlin.larose@uleth.ca)).

The purpose of this research project is to replicate past findings that show the effectiveness of the resilience-building and anxiety prevention program called FRIENDS for Life. Research of this type is important because childhood anxiety and anxiety disorders are becoming more common therefore it is essential to identify programs that can effectively prevent the negative symptoms of anxiety.

Your child is being asked to participate in this study because they are in Grade 3. During the 2018/2019 school year all Grade 3 students in X district are being asked to partake in the second phase of this study to help identify if this program is effective with this age group. If you agree to permit your child to participate in this research, his/her participation will include answering two anonymous 44-item questionnaires and 10 written journal entries regarding their anxieties and coping skills. In addition, as part of the Health Curriculum, your child’s class will all participate in the FRIENDS for Life program.

If you agree to allow your child to participate, please sign and return the attached sheets to your child’s homeroom teacher:

1. Consent for participation
2. Assent for child participation
3. Demographic questions

If you have any questions or concerns, please do not hesitate to contact me.

Caitlin LaRose

## Appendix H: Parent or Guardian Consent for Child Participation (Experimental Group)

**Caitlin LaRose**  
**University of Lethbridge**  
**XXX-XXX-XXXX**  
**caitlin.larose@uleth.ca**

Dear Parents or Guardians,

My name is Caitlin LaRose of the Education Department at the University of Lethbridge under the supervision of Dr. Chris Mattatall. Your child is being invited to participate in a research study looking at the effectiveness of the FRIENDS for Life anxiety prevention and resilience building program. The purpose of this research is to gain a better understanding of children's anxiety levels and coping skills before and after participating in this program.

This research will require a total of 1 hour of your child's time during the school day. During this time, your child will partake in two 44-item questionnaires and 10 journal entries, in addition to attending all ten 1-hour sessions of the FRIENDS for Life program during normal class time. The only anticipated risks or a discomfort related to this research is that your child will be asked to explain their worries and how they cope with them. If you would like, I can connect your child with the school counsellor or outside resources if they need. By participating in this research, your child will help me learn more about the effectiveness of this program with Grade 3 students.

Several steps will be taken to protect your child's anonymity and confidentiality. The questionnaires will be kept in a filing cabinet in my office and only I will access to them. Additionally the journal entries will be organized using numerical codes therefore your child's name will not be associated with it. These documents will be retained for 5 years and then confidentially shredded.

Participation in this research is completely voluntary. Your child may choose to not participate. You may also withdraw your child from the study at any time for any reason simply by notifying me. If your child stops participating, it will not be possible to remove his or her data as there will be no names linked to the information that has been collected.

The results from this study will be presented in a Master's project, and in other scholarly presentations and publications. At no time, however, will your child's name be used or any identifying information revealed. If you wish to receive a copy of the results from this study, you may contact me at [caitlin.larose@uleth.ca](mailto:caitlin.larose@uleth.ca) or the contact information provided above.

If you require any additional information about this study, please call me at 403-123-4567 or email me [caitlin.larose@uleth.ca](mailto:caitlin.larose@uleth.ca), or you may also contact my supervisor, Dr. Chris Mattatall, at 403-XXX-XXXX or [chris.mattatall@uleth.ca](mailto:chris.mattatall@uleth.ca). Questions regarding your child's rights as a participant in this research may be addressed to the Office of Research Ethics, University of Lethbridge (Phone: 403-329-2747 or Email: [research.services@uleth.ca](mailto:research.services@uleth.ca)).

This research study has been reviewed for ethical acceptability and approved by the University of Lethbridge Human Subject Research Committee.

A copy of this consent form will be given to you to keep for your records and reference.

---

I have read (or have been read) the above information regarding this research study on children's use of mobile technologies, and consent for my child to participate in this study.

\_\_\_\_\_ (Printed Name of Child Participant)

\_\_\_\_\_ (Printed Name of Parent/Guardian)

\_\_\_\_\_ (Signature of Parent/Guardian)

\_\_\_\_\_ (Date)

\_\_\_\_\_ (Printed Name of Researcher)

\_\_\_\_\_ (Signature of Researcher)

\_\_\_\_\_ (Date)

## Appendix I: Child Assent for Participation (Experimental Group)

Caitlin LaRose  
XXX-XXX-XXXX  
caitlin.larose@uleth.ca

### ***Why are you here?***

My name is Caitlin LaRose from the University of Lethbridge. I want to see if you would like to be in my study. I want to learn about things that you worry about and ways that you help cope or deal with the things that scare or worry you.

### ***What is expected of you?***

If you agree to be in my study, you will answer questions about the different things that may worry you and what happens when you get nervous. This will take about 15 minutes. There are also 10 short written questions that you will answer once a week till December. These questions may remind you of times in the past when you were scared or make you think of things that you are nervous for in the future. They may also help you think of good ways of coping with these things. From October to December you will also be part of a program that your teacher will be leading during your regular health classes.

### ***Who will know you are in my study?***

Other students in your class will also be part of the study; therefore some of your classmates might know and your teacher. But I will be the only one who will see your answers. I will put your answers with the answers of others who are in my study so no one can tell what answers came from you. When I tell other people about my research, I will not use your name.

### ***Where will the study take place?***

The study will take place at school in your regular classroom during your health class.

### ***Do I have to be in the study?***

No. Your parents or guardian have to agree for you to be in my study and then you get to decide if you want to be in my study. If you don't want to be in my study, no one will be mad at you. If you want to be in the study and then change your mind later, you can do that too. You can stop being in my study at any time by telling me.

### ***Will the study help me?***

The study will not help you directly but you will help me understand the things that worry you and how you deal with those things.

### ***What if I have questions?***

You can ask me questions at any time. My phone number and email address are at the top of this page. You can also ask your parents or guardian if you have any questions because the study has been explained to them. If you want, you can also contact the Office of Research Ethics at the University of Lethbridge at 403-329-2747 or [research.services@uleth.ca](mailto:research.services@uleth.ca) to ask questions.

I will give you a copy of this form in case you want to ask questions later.

**Agreement**

I have decided to be in the study even though I know that I don't have to do it. Caitlin LaRose has answered all my questions.

---

Printed Name of Participant

---

Date

---

Signature of Participant

---

Date

---

Printed Name of Researcher

---

Date

---

### Appendix J: Demographic Questions

1. **How old is your child?** \_\_\_\_\_
  
2. **What is your child's gender? Please circle.**  
Male    Female    Other
  
3. **What is your child's ethnicity? Please circle.**  
  
While/Caucasian  
  
Hispanic/Latio  
  
Black/African American  
  
First Nation/Metis/Inuit  
  
Asian  
  
Other (Please specify)  
  
\_\_\_\_\_
  
4. **Has your child had counselling or participated in educational groups on anxiety?**  
  
Yes    No
  
5. **Has your child ever participated in the Friends Program group (e.g. Fun Friends or Friends for Life) in the past?**  
  
Yes    No

### Appendix K: SCAS Child-Version Questionnaire <sup>2</sup>

<b>Please put a circle around the word that shows how often each of these things happens to you. There are no right or wrong answers.</b>				
	Never	Sometimes	Often	Always
1. I worry about things.	Never	Sometimes	Often	Always
2. I am scared of the dark.	Never	Sometimes	Often	Always
3. When I have a problem, I get a funny feeling in my stomach.	Never	Sometimes	Often	Always
4. I feel afraid.	Never	Sometimes	Often	Always
5. I would feel afraid of being on my own at home.	Never	Sometimes	Often	Always
6. I feel scared when I have to take a test.	Never	Sometimes	Often	Always
7. I feel afraid if I have to use the public toilets or bathrooms.	Never	Sometimes	Often	Always
8. I worry about being away from my parents.	Never	Sometimes	Often	Always
9. I feel afraid that I will make a fool out of myself in front of people.	Never	Sometimes	Often	Always
10. I worry that I will do badly at my school work.	Never	Sometimes	Often	Always
11. I am popular amongst other kids my own age.	Never	Sometimes	Often	Always
12. I worry that something awful will happen to someone in my family.	Never	Sometimes	Often	Always
13. I suddenly feel as if I cant breathe when there is no reason for this.	Never	Sometimes	Often	Always
14. I have to keep checking that I have	Never	Sometimes	Often	Always

<sup>2</sup> Original version from <http://www.scaswebsite.com/docs/scas.pdf>

done things right (like the switch is off, or the door is locked).				
15. I feel scared if I have to sleep on my own.	Never	Sometimes	Often	Always
16. I have trouble going to school in the mornings because I feel nervous or afraid.	Never	Sometimes	Often	Always
17. I am good at sports.	Never	Sometimes	Often	Always
18. I am scared of dogs.	Never	Sometimes	Often	Always
19. I can't seem to get bad or silly thoughts out of my head.	Never	Sometimes	Often	Always
20. When I have a problem, my heart beats really fast.	Never	Sometimes	Often	Always
21. I suddenly start to tremble or shake when there is no reason for this.	Never	Sometimes	Often	Always
22. I worry that something bad will happen to me.	Never	Sometimes	Often	Always
23. I am scared of going to the doctors or the dentists.	Never	Sometimes	Often	Always
24. When I have a problem, I feel shaky.	Never	Sometimes	Often	Always
25. I am scared of being in high places or lifts (elevators).	Never	Sometimes	Often	Always
26. I am a good person.	Never	Sometimes	Often	Always
27. I have to think of special thoughts to stop bad things from happening (like numbers or words).	Never	Sometimes	Often	Always
28. I feel scared if I have to travel in the car, or on a bus or a train.	Never	Sometimes	Often	Always
29. I worry what other people think of me.	Never	Sometimes	Often	Always

30. I am afraid of being in crowded places (like shopping centers, the movies, buses, busy playgrounds).	Never	Sometimes	Often	Always
31. I feel happy.	Never	Sometimes	Often	Always
32. All of a sudden I feel really scared for no reason at all.	Never	Sometimes	Often	Always
33. I am scared of insects or spiders.	Never	Sometimes	Often	Always
34. I suddenly become dizzy or faint when there is no reason for this.	Never	Sometimes	Often	Always
35. I feel afraid if I have to talk in front of my class.	Never	Sometimes	Often	Always
36. My heart suddenly starts to beat too quickly for no reason.	Never	Sometimes	Often	Always
37. I worry that I will suddenly get a scared feeling when there is nothing to be afraid of.	Never	Sometimes	Often	Always
38. I like myself.	Never	Sometimes	Often	Always
39. I am afraid of being in small closed places, like tunnels or small rooms.	Never	Sometimes	Often	Always
40. I have to do some things over and over again (like washing my hands, cleaning or putting things in a certain order).	Never	Sometimes	Often	Always
41. I get bothered by bad or silly thoughts or pictures in my mind.	Never	Sometimes	Often	Always
42. I have to do some things in just the right way to stop bad things from	Never	Sometimes	Often	Always

happening.				
43. I am proud of my school work.	Never	Sometimes	Often	Always
44. I would feel scared if I had to stay away from home overnight.	Never	Sometimes	Often	Always
45. Is there something else that you are really afraid of?	YES	NO		
If yes, please write down what it is.				

**Appendix L: Qualitative Journal Entry Questions/Prompts**

**1. At recess you notice someone sitting alone. How do you think this person might feel and what is something you can do to help?**

**2. Tell me about a time in your life when you felt like this picture.**



**3. Brainstorm some ways that we can help our body relax.**

**4. Instead of saying "I'm dumb, I will never pass the test" what is a more positive thought you could tell yourself?**

**5. Read the following story and provide some ways that this person can change the negative thoughts to positive thoughts.**

No body at school likes me. My best friend moved away and we barely talk anymore. All my classmates think I am such a geek and no one wants to ever play with me. I can't find any

new friends and I never get picked in gym class.

**6. Think of something challenging in your life. What are some ways that you could cope with this?**

**7. Think about a time when their support network was helpful and draw (and label) this situation.**

**8. Brainstorm ways you could solve this problem.**

Yesterday I borrowed my brother's iPad even though he told me not to use it. I accidentally dropped it and the screen totally cracked. My brother is away the next couple of days but when he comes home he is going to be so mad at me. He saved up to buy this iPad with his own money. He will never let me borrow or touch anything of his ever again. I bet he won't even talk to me.

**9. Brainstorm ways in which they would like to get rewarded for your hard work.**

**10. What are some ways that you can give back or things you could teach to your peers, school or community?**

- a) Tell me one thing you enjoyed about being part of the FRIENDS group.**
- b) What was something that was not enjoyable?**
- c) How did the FRIENDS program help you?**
- d) What are some ways that the program could be change to make it more enjoyable to you?**