Play Pals Case Study: Promoting Physical Activity and Health Literacy Through Near-peer Role Modeling and Mentoring

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Stephanie Ruth Miller, candidate for the degree of Master of Science in Kinesiology & Health Studies, has presented a thesis titled, Play Pals Case Study: Promoting Physical Activity and Health Literacy Through Near-Peer Role Modeling and Mentoring, in an oral examination held on August 15, 2013. The following committee members have found the thesis acceptable in form and content, and that the candidate demonstrated satisfactory knowledge of the subject material.

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ABSTRACT

Adolescent girls are not meeting the recommended daily physical activity levels needed to maintain a healthy lifestyle. The 2012 Active Healthy Kids Canada report card states that only 17% of girls ages 10-16 accumulate at least 60 minutes of moderate to vigorous physical activity on each of the past seven days (Active Healthy Kids Canada, 2012). If this trend continues into adulthood, many girls are facing the risk of developing chronic diseases such as diabetes, cardiovascular disease, colon cancer, asthma, and arthritis, which could easily be prevented by establishing and maintaining a healthy, active lifestyle early in life (Center for Disease Control and Prevention, 2011). The Center for Disease Control and Prevention states that schools can promote physical activity through comprehensive school programs, including recess, physical education, and classroom-based physical activity (Center for Disease Control and Prevention, 2011).

This case study aimed to develop a near-peer mentoring program called Play Pals that has been designed for grade six girls, which could be used by schools throughout the school year. The mentoring program focused on strengthening health literacy and being physically active. The objective of this study was to determine how Play Pals was able to promote physical activity and health literacy in middle school girls through the mentoring of healthy active living to girls in primary grades. The experiences of the girls in the program were also explored.

The setting for this case study took place at a small elementary school named St. Victoria Community School. St. Victoria is located in a northern Saskatchewan community of 3500 citizens. The school is part of the provincial school system and serves a predominantly Aboriginal school population located throughout the northern
geographical half of Saskatchewan. Methods involved focus group discussions, e-mail correspondence, and researcher’s observations and journaling during Play Pal sessions. Common themes were extracted from the journaling, observations, and transcribed focus groups. Research questions guiding this study included: How did Play Pals promote physical activity among its primary participants? How did Play Pals promote health literacy among its primary participants? And, how is Play Pals a sustainable program in schools?

Findings from this study suggest Play Pals has the potential to promote physical activity and health literacy, while also having the characteristics to be a sustainable program within the school system. Play Pals also proves to be an excellent opportunity for older girls to mentor younger girls in their school. Both sets of girls responded positively to the mentoring aspect of the program, indicating that mentoring and school-based intervention programs can be a successful combination.
ACKNOWLEDGEMENT

This thesis would not have been possible without the guidance and support of several individuals. I would first like to recognize my committee led by Dr. June LeDrew and Dr. Larena Hoeber, along with Dr. Rebecca Genoe and Dr. Toni Liechty. Their attention to detail, encouragement, and insight were instrumental in my completion of this study and paper. I would also like to express my gratitude to Dr. Twyla Salm, for agreeing to serve as External Examiner on this paper and during my oral defense.

I would also like to acknowledge the principal of the elementary school, for allowing me access to his school and to the students. Without his openness and acceptance, I would not have been able to carry out my Play Pals program. I am also grateful to the teachers who allowed their students to participate in this program, and for accommodating the program schedule. I would also like to thank the staff of NORTEP for allowing me to reside in their student housing during the duration of my program. Their generous hospitality was greatly appreciated while being so far from home.

Lastly, I would like to recognize The Faculty of Graduate Studies and Research. I was fortunate to receive funding through their International Student scholarship and teaching assistantship appointments. This funding helped to cover the many expenses a graduate student has along the way.
DEDICATION

This thesis is dedicated to the three people I hold dearest to my heart. Thank you Mom, Dad, and Amanda for your love, support, encouragement, and patience. I could not have accomplished this without you all.
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1. Introduction

1.1 Research Topic

The research topic for this paper centers on the development of an in-school near-peer mentoring program called Play Pals and its ability to promote physical activity and health literacy amongst its school-age participants. An individual’s level of health literacy can be described as their ability to access, understand, and use information to make choices about his or her own health (Canadian Council for Learning, 2008). I also looked to establish whether this program is sustainable and can be used in schools throughout the school years. Play Pals was originally created as a means to target the decreasing levels of physical activity that have been repeatedly reported in today’s youth in young adolescent females (Active Healthy Kids Canada, 2012; Statistics Canada, 2011; Canadian Fitness & Lifestyle Research Institute, 2011).

1.1.2 School setting. St. Victoria Elementary School\(^1\) is one of two public elementary schools located in a small town of 3,500 residents in Saskatchewan. The town sits adjacent to a First Nations Indian band of approximately 2,000 residents. There is strong Aboriginal presence in the school and amongst the community. During my introductory meeting with the elementary school’s principal to discuss my project he immediately acknowledged the need for such a physical activity program. He expressed that many of the grade six girls do not enjoy recess, and often complain they have nothing to do. Due to the high population of first nation residents all students attending this school obtain two sessions each of Cree Language and Culture instruction, as well as computer technology training, and physical education in each 6-day cycle, allowing the

\(^1\) Pseudonym
students to participate in physical education approximately twice per week. While the school maintains a strong commitment to what students do inside the classroom at their desk, more focus is needed to extend this commitment outside of the classroom as well.

1.2 Researcher Background

I have several personal experiences that have guided me toward this thesis topic. First, I have strong recollections of my grade school and junior high years in Sidney, Ohio. I was always a very active girl, and Physical Education and recess were two of my favourite times of the school day. I had no trouble competing with boys, and I was highly proud of the fact I was always one of the first players picked for kickball, even amongst the boys. While I enjoyed my daily athletic involvement, I remember clearly the sights of my other female classmates and friends. These sights included a group of girls who would always follow the “teacher on recess duty” around the playground perimeter. I, of course, thought this to be just plain silly for a girl to spend her whole free time following the teacher around by her coattails. Another group of girls would spend their recess break sitting along the fence making beaded jewellery or braided friendship bracelets, or whichever fashion accessory fad was the rage that school year. Again, to a girl whose school uniform pants had permanent grass stains and kneeholes, this type of behaviour seemed abnormal, and I was content not being an active participant.

As I entered junior high (seventh and eighth grade) the discrepancy between the boys and the girls became even more apparent, both in physical education class and during recess. One memory that sticks out to me is the week we spent PE class at my local YMCA for swim lessons. Growing up with a swimming pool in my backyard I was eager to swim, but even I felt the self-conscience pull of a 12 year-old female. I
remember the girls in my class fell into three categories when it came to changing into our swimsuits: 1) those who would change at their locker, but face only the locker, and attempt to put their swimsuit on while also maintaining fully clothed, which is difficult to do; 2) the YMCA locker room had one bathroom stall, and girls in this category would wait in a line of 20 or more to change privately; and 3) some girls chose not to change, and subsequently not to participate. The last moment of courage for myself and the rest of the girls came on the pool deck with the removal of our towels. Much like changing into our swimsuits, this too required strategy. Leaving our towel near the bleachers meant having to walk in front of the rest of the class in just our suits. Luckily the swim pool had a bar that stretched the end of the pool, so basically wherever we placed our towels along this bar is also the exact spot where we jumped into the pool. And not by coincidence, this would also be the same spot where we exited the pool as well.

As an adult working in the youth sports and recreation field, I began to see the decline in physical activity participation among early adolescent females. As the youth sports director for a downtown Florida YMCA I had a close look at who participated in the co-ed sports leagues. The sport leagues at this YMCA began with a 3-4 year-old age group, then 5-6 year-olds, 7-8 year-olds, 9-11 year-olds, and concluded usually with 12-14 year-old age group. Participation in the two youngest age groups was always our largest, and mostly split 50-50 in terms of boys and girls participating. By the seven to eight year-old age group, a slight decline in females participating began to appear, and by the time rosters were developed for the 9-11 age group, it would be typical to have only a handful of girls for an eight-team co-ed league. There could be many reasons why this decline occurred, but it was a trend I saw year-round, sport to sport, for three years.
Having spent three years as an elementary and middle school physical education teacher, I saw first hand the decline in physical activity amongst girls. This was both noticeable as the students grew older and also by comparing one grade level to another. It was a shift in attitude and performance that I never had the time nor the means to question or address. This shift was remarkable in a way. Girls who I had taught went from active P.E. participants during fifth grade to social butterflies, often getting in the way of a game, by seventh grade. I would do my best to encourage these girls, but having eyes rolled at me so many times started to become a deterrent. This change was often most apparent during their recess time in the afternoon. From my observations, most of the girls sat under trees talking, while the boys were playing touch football. A few years prior, those same girls were probably swinging from monkey bars, playing four-square, or tag.

Was there something our school could have done to intervene and prevent this decline in physical activity from occurring? Is it not the responsibility of teachers to develop the whole child? Grade-school students at St. Victoria spend approximately 197 days out of the year in school (St. Victoria Community School, 2011, School calendar). Schools have a captive audience of students. Professionals are already in place to assist in physical activity promoting programs, and their power to influence physical activity levels is enormous, if given sufficient resources on the matter. The 2011 report card suggests physical education teachers, physical activity leaders as well as other teachers and school staff need to be given adequate, regular, and appropriate resources to establish quality and safe physical activity programs (Active Healthy Kids Canada, 2011). The designing and development of a program to meet these recommendations of being a safe,
quality physical activity program can greatly benefit the students participating. Also important is that programs be designed in a way that all teachers and staff can facilitate the program. According to the World Health Organization, schools are one of the most cost effective investments a state or nation can make to improve not only education, but health as well (McKenzie & Lounsbery, 2009). While schools often target health and physical fitness in the formal setting of Physical Education (PE), it has become clear that not all students reap the benefits of this class. First, most schools cannot or do not offer PE on a daily basis. The Heart and Stroke Foundation of Canada found that only 20% of Canadian children received daily physical education class (Heart and Stroke Foundation of Canada, 2012). Secondly, large class sizes inhibit participation opportunities, which results in little time spent in actual moderate to vigorous activity levels (McKenzie & Lounsbery, 2009). Lastly, girls’ levels of physical activity is significantly lower than boys’ levels, even though they are participating in the same games and activities (McKenzie, Marshall, Sallis, & Conway, 2000). This decline is noticeable in physical education class too, as girls tend to spend less time in moderate to vigorous physical activity, and when given the option, choose not to participate at all (Chorney & Weitz, 2009; Nettleford, et al., 2011).

Students should be taught the importance of healthy active living and be given programs to foster and develop the skills necessary for an active lifestyle, which allows for the opportunity to enhance their self-worth, self-confidence, and self-esteem (Piek, Baynam, & Barrett, 2006). Harter (1987) found that children’s perceived motor skill and athletic competence were strong predictors of self-worth. A healthy, active student is more likely to be a healthy, active adult, and a healthy, active adult is more likely to have
a higher overall quality of life (Bailey, Wellard, & Dismore, 2005). According to Pate, Davis, Robinson, Stone, McKenzie, and Young (2006), schools need to expand and renew their role in providing and promoting physical activity for young people.

1.3 Purpose of Study

With this study I turned to the schools as a way to provide and promote physical activity to its female students. My plan was to introduce a near-peer mentoring program named Play Pals, which is modeled after the popular reading buddies program many schools utilize today. Reading buddies is a program in which an older student is paired with a younger student to model good reading (Teacher Vision, 2010). By placing older students in a role similar to a mentor, tutor, and/or role model the objective was to increase their awareness of the subject of physical activity and its importance to overall health. I was interested to see if the older students would feel a sense of accomplishment by taking part in the selection of activities, and if their own motivations to be physically active may improve and result in increased physical activity levels. Research studies examining the effects of cross-age tutoring programs have found similar results. Paterson and Elliot (2006) found older students gained a greater sense of responsibility for themselves and their tutee, the older students were encouraged and motivated to do better in their own schooling, they valued their position as a role model, gained self-confidence and the older students also began to see themselves as powerful change agents.

The purpose of this research study was to explore how early adolescent girls (primary participants) experience Play Pals, a school-based near-peer mentoring program designed to promote physical activity and health literacy.

The three research questions were:
1) How does Play Pals promote physical activity among its primary participants?

2) How does Play Pals promote health literacy among its primary participants?

3) How is Play Pals a sustainable program for schools?

1.4 Pilot Study

A pilot study of Play Pals was conducted in spring 2009. While this project was only three weeks, the results obtained from the pre-adolescent girls were positive and encouraging enough to warrant a longer more in-depth study. The participants, eight grade six female students, took part in two focus groups to discuss their thoughts on physical activity and role modeling, and developed a list of age appropriate games they wanted to play with their younger Play Pal, a grade two student. In between the two focus groups the girls spent two lunch and recess periods with their grade two Play Pal. The first day, the girls accompanied their Play Pal to the school’s recess yard where they played four different playground games: British Bulldog, Toilet Tag, Duck Duck Goose, and What Time is it Mr. Wolf? The participants were responsible for explaining the rules of the game as well as making sure their own Play Pal was correctly playing the game. The second Play Pal session was focused on health literacy, as the participants read and discussed the book “Children on the Move: An Active Living Alphabet” and playing a game of “Active Living Charades” in which partners would act out a word associated with active living. In brief, the participants identified, accepted and valued their “position” as a role model to younger female students in their school. Secondly, the older participants acknowledged that they do not utilize their physical education class or recess time to be physically active. During physical education, the girls’ grade six class was combined with seventh and eighth grade classes as well. The participants said playing
against older and bigger students was unfair, and they did not enjoy having to face them in physical competition. They all agreed, as well, that they would much rather have an “all girls” physical education class. The girls felt more comfortable and less intimidated being physically active in an all-girls environment; an additional reason why Play Pals is a girls-focused program. During recess, when the girls had their own choice of activities, they admitted that most often they used this time to sit around and talk with one another. Asked why they chose this, they said it was their only opportunity to really talk with their friends during the school day. Establishing a program such as Play Pals will allow for an all-girls environment where the girls can also engage socially while promoting and engaging in physical activity. Speaking directly of the Play Pals program, the participants said they really enjoyed spending time with their Play Pal in an active setting. They also said they liked having the lunch period to talk freely with their Play Pal and friends as it gave them more time to get to know their Play Pal. The participants also said that if they were to continue with the program they would like to see fitness and sport-specific games and activities included to add variety to what they would role model and teach to their Play Pal.

1.5 Definition of Terms

Physical activity: all leisure and non-leisure body movement produced by the skeletal muscles and resulting in an increase in energy expenditure (Hales & Lauzon, 2010).

Reading buddies: a program in which an older student is paired with a younger student to model good reading (Teacher Vision, 2010).
Cross-age/Near-peer tutoring & mentoring: older students helping younger students at their school on a sustained and systematic basis, under the direction and supervision of the researcher (Goodlad, 1998).

Role modeling: three major functions of role models: as examples of how to behave in specific situations; as benchmarks by which to gauge one’s own progress; and as sources of inspiration (Tuck Communications, 2011). For this project, role modeling is described as an observable image of active, healthy living because of the positive skills and qualities an individual possesses.

Self-efficacy: the belief that one can successfully execute the behaviour required to produce an outcome; the stronger the perceived self-efficacy the more active the effort (Crocker, 2010).

Near-peer: students who are close to one’s age level, and whom one may respect and admire (Jenkins & Jenkins, 1981).

Adolescence: a transitional period of physical and psychological development between youth and maturity, roughly 12-18 years old (Spear, 2000).

Health literacy: the ability to access, comprehend, evaluate and communicate information as a way to promote, maintain and improve health in a variety of settings across the life-course (Public Health Agency of Canada, 2011, About, para. 1).

Promote: further the progress of; support or actively encourage (Oxford Dictionaries, 2010).
2. Review of Literature

2.1 Introduction

The following chapter discusses the theoretical and objective evidence, which has provided the basis for this research project. The review of literature begins with the current state of youth’s physical activity levels, and then specifically discusses physical activity amongst early adolescent females. The second part of this chapter addresses the use of near-peer tutoring, mentoring and role modeling. The third part discusses the background and benefits of a reading buddies program, which previously stated, is the model for the Play Pals program. To date, there is no research on a Play Pals program, so the literature reviewed focused on reading buddies, and similarities and differences between the two programs are highlighted.

2.2 Children’s Health and Physical Activity

Active Healthy Kids Canada was established to be the trusted source for “powering the movement to get kids moving” (Active Healthy Kids Canada, 2009, About Us section, para. 1). They release an annual report card that speaks to the current state of Canadian youth’s physical activity levels. In their most recent edition of the Active Healthy Kids Canada Report Card on Physical Activity (2012), along with the rest of Canada, Saskatchewan received an F for physical activity levels for the sixth year in a row. In both Saskatchewan and the rest of Canada, 87% of youth, ages 5-19, are not achieving the recommended 60-90 minutes of daily physical activity. Unfortunately, when surveyed, 70% of parents feel their children are reaching recommended physical activity levels (Active Healthy Kids Canada, 2010). If parents feel their children are being adequately active, then there will likely be no push on their part to increase their
children’s physical activity levels. Again, without the help from home, schools must step in and provide the opportunities for children to be active throughout the day. The State Education Standard (2004) admitted that “schools cannot solve the inactivity and obesity epidemic on their own, but it is unlikely to be halted without strong school-based policies and programs” (p. 5). It was also argued that schools have long been a venue for promoting the basic components of health and physical activity, so they are not being asked to take on new responsibilities (The State Education Standard, 2004). The National Association of State Boards of Education wrote “Health and success in school are interrelated. Schools cannot achieve their primary mission of education if students and staff are not healthy and fit physically, emotionally, and socially” (The State Education Standard, 2004, p. 4). The school environment is an ideal setting for developing the whole child, not just academically, but physically as well.

Why is such national attention being placed on the physical activity and obesity levels in children? According to the 2004 Canadian Community Health Survey, 26% of Canadian children ages 2-17 years were either overweight or obese (Canadian Community of Health Research, 2005). Between 1978 and 2004 the obesity rate among 12-17 year olds has seen an increase from 3% to 9% (Canadian Community of Health Research, 2005). Further, it was noted, “childhood obesity has tripled over the past two decades” (Canadian Community of Health Research, 2005, para. 3). An even more frightening statement came from the CEO of the Heart & Stroke Foundation of Canada, whom stated, “we’re looking at the first generation that could start developing heart disease in their 30’s” (Heart and Stroke Foundation of Canada, 2002, para. 2).
It is well known now that this lack of physical activity during childhood and adolescence can have negative consequences on adult health and quality of life (Bailey et al., 2005; Pate et al., 2006). According to the American Heart Association (2010), physical inactivity can lead to an increase in one’s risk of stroke, high blood pressure, diabetes, and is a major risk factor for developing coronary artery disease. A child who is physically active can enjoy the benefits of a higher life expectancy, decreased risk of coronary artery disease, increased ability to control their weight, reduced blood pressure, and often gains in self-esteem and self-confidence (American Heart Association, 2010). In addition, physical activity in childhood can lay the foundation for being physically active in adulthood and the development of a positive lifestyle that leads to a healthy productive life (Ganley & Sherman, 2000).

As mentioned previously, this study took place in a predominately aboriginal school setting, therefore, it is important to consider the health and physical activity circumstances of aboriginal youth specifically. Health disparities exist among aboriginal and non-aboriginal youth, and Statistics Canada has reported that aboriginal children do experience poorer health than non-aboriginal children (Findlay & Janz, 2012). Aboriginal children are at higher risk of ear infections, obesity, dental problems, and of being hospitalized for asthma (Findlay & Janz, 2012). Ng, Young, and Corey (2010) found that obese aboriginal youth are significantly less likely to participate in leisure time physical activity than their non-obese peers. The prevalence of obese and overweight aboriginal youth is also greater than that in non-aboriginal youth. Ng et al. (2010) stated that Aboriginal youth between the ages of 12-17 have the highest occurrence of overweight (41%) and obesity (20%), almost 2-5 times higher than the national average.
The three main determinates for overweight and obesity were found to be poor dietary habits, lower physical activity levels, and high sedentary behaviours among the aboriginal youth (Ng et al. 2010). For this reason, health literacy topics included proper nutrition and the importance of maintaining an active lifestyle, and all Play Pal sessions involved some level of physical activity participation.

2.3 Girls and Physical Activity

Research over the years has continued to suggest a serious decline in physical activity participation in schools among girls as they age. Physical activity declines almost 50% during female adolescence, with the most dramatic declines occurring between ages 12 to 15 years (Davison, Schmalz, & Downs, 2010; Garcia, 1995). According to Fenton, Kopelow, and Lawrence (2000), the decline in girls’ physical activity begins around the age of 12, and this drop continues until only 11% of girls are still active at 16-17 years of age. Active Healthy Kids Canada (2010) makes a special note regarding the inactivity levels we are seeing in adolescent girls in the 2010 report card. They stated, “only five per cent of adolescent girls are meeting the Canadian physical activity guidelines. However, 20 per cent of boys aged five to 10 and 15 per cent of boys aged 11 to 14 are meeting the guidelines” (Active Healthy Kids Canada, 2010, p. 3). The most recent 2012 report still found a gender gap, with 28% of boys 10-16 years old accumulated at least 60 minutes per day of MVPA (moderate to vigorous physical activity) versus only 17% of girls in the same age category (Active Healthy Kids Canada, 2012). The declines in inactivity were greatest during recess and physical education time, when less supervision, support and encouragement is provided (Barr-Anderson et al., 2008; Beighle, 2006; James, 1999; McKenzie, 1997). While teachers were present
during both of these times, boys had been shown to receive a greater number of prompts, encouragement, and attention.

The perceptions and interests of girls to participate in physical activity may also be different than that of boys (Vu, Murrie, Gonzalaz, & Jobe, 2006). Understanding these differences is important when trying to develop a physical activity intervention program. Adolescent girls, who generally listed weight management as a reason for physical activity involvement, often chose less vigorous activities, and girls were more likely than boys to believe the barriers to physical activity outweighed the benefits (Vu et al., 2006).

When asked to identify their main barrier to physical activity, girls often identified themselves as a barrier. Such reasons were lack of motivation and interest, low self-esteem, low self-efficacy, shyness, and a low belief that exercise could or should be fun, and self-consciousness (Coleman, Cox, & Roker, 2006). O’Dea (2003) found similar results when examining adolescent girls’ perceived barriers to physical activity. The most commonly reported barriers were a preference for indoor activities such as computer games and television watching, low energy and motivation levels, as well as time constraints due to homework and other extracurricular activities (O’Dea, 2003).

Decreases in physical activity levels could also be explained by the onset of puberty, and the physiological and psychological changes that accompany it. The physiological changes that early adolescent girls must cope with are an increase in body fat, breast development, and the start of menstruation (Davison, Schmalz, & Downs, 2010). Not only were young female bodies changing, their social awareness also heightens. According to Davison et al. (2010) young females also experienced an increased desire
for independence, need for peer visibility and conformity, and the onset of romantic relationships. All these combined, girls acknowledged feeling valued mainly for their physical appearance and attributes, leading to dissatisfaction with their bodies.

Unfortunately, children’s main source of physical activity opportunities is slowly declining, as more schools are cutting back on physical education and recess, in hopes of bolstering academic test scores (Trost & van der Mars, 2009/2010). Citing the 2007 Center on Education Policy, Trost and van der Mars claimed that 44% of school districts cut time in areas such as P.E. and recess by an average of 30 minutes per day to accommodate an increase in reading and math instructional time. Many studies have concluded otherwise, and have stated the important role that schools play as physical activity facilitators. Schools have the capacity to provide physical activity opportunities to children who normally would not have engaged in such pursuits (Beighle, 2006; Dale, Corbin, & Dale, 2000; McKenzie, 1997).

The benefits of regular physical activity, as they relate to girls in particular are numerous. Bailey et al. (2005) organized these benefits into four categories: physical health, mental health, educational and intellectual development, and social inclusion. Physical benefits include a longer and better quality of life, prevention of chronic diseases, obesity prevention and improved bone health.

From a mental health perspective, regular physical activity can have a positive effect on girls’ overall well-being, and can contribute to the reduction of problematic levels of anxiety and depression (Strong, et al., 2005). Further research has suggested exercise for adolescent girls may also prove useful as a preventative measure against mental illness by allowing them to deal with body changes, feelings of insecurity, and
powerlessness through the provision of meaningful, goal-oriented experiences (Reid, Dyck, McKay, & Frisby, 2000). The distortion of a girl’s self-image, the individual, subjective sense of the body, begins during early adolescence (Rierdan & Koff, 1997). The onset of puberty brings about many changes in the female body, mainly an increase in fat mass that does not coincide with the ideal “slender” body (Rierdan & Koff, 1997). By the age of 18, more than 50% of women perceive themselves as too fat, despite having normal body weight (Fenton et al., 2000).

Bailey et al. (2005) listed education and intellectual development as the third type of benefit gained from physical activity. Evidence has shown a positive relationship between girls’ participation in sports and pro-educational values (Bailey et al., 2005). This suggested that girls who participate in sports were very likely to have high academic standards and aspirations. Bailey et al. (2005) further explain that girls who participate in high school sports are more likely to achieve academic success than those who do not play sports. Female athletes also tend to express a greater interest in graduating high school and college (2005).

The final category outlined by Bailey et al. (2005) is social inclusion. Sports and physical activity have been considered by some to be identified closely with masculinity, causing some girls to feel excluded rather than included (Bailey et al., 2005). However, girls with positive sport and physical activity experiences do seem to take part in the social inclusion process in four main instances: 1) individuals are brought together from diverse backgrounds in a shared interest activity, 2) sport and physical activity offer girls a sense of belonging, 3) sport provides girls with opportunities for the development of
valuable capabilities and competencies, and 4) girls are able to develop a social network, community cohesion, and civic pride (Bailey et al., 2005).

Adolescent girls have said that seeing other active girls encouraged and motivated them to be more active themselves, despite other perceived barriers still existing (Vu et al., 2006). Programs must also emphasize cooperative activities and the development of life-long physical competency (Reid et al., 2000). It has also been noted that the role of peer leadership on adolescent participation in physical activity should be explored as a possible effective means of maintaining or enhancing physical activity levels (Vu et al., 2006). Barr-Anderson et al. (2008) suggest two physical activity intervention strategies worth investigating: 1) programs designed to increase self-efficacy, and 2) exploring an environment in which girls are encouraged and supported in their efforts to be physically active.

2.4 Cross-age Peer Tutoring

One method to consider in regards to enhancing girls’ perceived competence in physical activity is a cross-age peer-tutoring program (CAPT). Cross-age peer tutoring is a form of peer lead instruction, in which a tutor is older than a tutee (Topping, Peter, Stephen, & Whale, 2004). There are many additional labels assigned to this type of instruction, such as peer teaching, mutual instruction, child teaching child, learning through teaching, and peer learning (Bradford-Watts, 2011). According to Bradford-Watts (2011), all peer-tutoring programs share the Vygotskian approach, in which learning is understood to occur though a negotiation of meaning with others within the learning environment. Vygotsky wrote that, “all learners can be helped to attain new understanding at the next developmental level through the active involvement of a
‘sophisticated other’” (Bradford-Watts, 2011, p. 347). In the case of CAPT, the “sophisticated other” is the older student.

For this study, the term near-peer mentor and role model was a better description for the role older students had. Mentoring, as compared to tutoring, focuses more on life skills and often takes place outside of the classroom (Goodlad, 1998). The term mentor has many definitions and can be open to numerous interpretations. For the purpose of this study, I viewed mentoring as a relationship formed between an older student and younger student for the purpose of spreading health knowledge and awareness and to facilitate learning. A role model in this context was viewed as an observable image of active, healthy living because of the positive skills and qualities they possess. I feel being referred to as role model and mentor had a powerful impact on the participants who had taken on the role of a Play Pal mentor.

Topping et al. (2004) explored the effectiveness of a primary school’s science CAPT program. In terms of the tutor’s overall experiences, the researchers found that 77% of the tutors reported being more interested in science, and 67% enjoyed science more following the CAPT program (Topping et al., 2004).

Tutoring amongst peers can be enjoyable for the tutee, and it can also increase the level of learning by the tutor (Goodlad & Hirst, 1989). Ultimately, CAPT has the capability to become a significant source of learning new information and skills for the tutor. Tutoring does not need to be looked upon only as a way to help the troublesome student, but a way to empower the tutoring student as well. By teaching, we can also learn ourselves (Goodlad & Hirst, 1989). Jenkins and Jenkins (1981) suggest that near-peer tutoring will help the tutor academically, attitudinally, and in social settings near-
peer tutoring allows children the responsibility to care for and help others, while being systematically supervised. Jenkins and Jenkins (1981) give four reasons for the gains seen in near-peer tutors. First, the tutoring experience allows the student to attain new information and skills through training. Second, tutoring can be a refresher course, a review of information and skills. Third, tutors may become more aware of their own classroom work, and become more conscience and sensitive about their own performance. Fourth, a tutor may experience an attitudinal change that may indirectly influence their involvement in learning (Jenkins & Jenkins, 1981). While these reasons focus on academic gains, Play Pal participants can achieve similar increases in physical activity behaviours as well. For example, the older girls may learn from the researcher how to properly instruct and facilitate a game, understand what activities are developmentally appropriate for their younger Play Pal, and discover methods to incorporate literacy and physical activity into meaningful learning activities for their younger Play Pal. By taking the time to learn and develop appropriate activities for their younger Play Pal, the participants may feel their own attitudes change regarding physical activity, and may find ways to include physical activity into their own lives.

The idea of utilizing children to teach other children has roots as far back as the 19th century. Between 1800-1850 the teaching method known as the “Bell-Lancaster” method was used considerably in Europe and in the United States (Myrick & Bowman, 1981). Teachers would often use the most responsible and brightest students to teach additional students. This allowed for a lower “student-teacher” ratio, and proponents said it placed more responsibility and trust in older students and provided them with leadership experiences. Eventually the number of qualified professional teachers began
to rise, and the use of students to teach other students began to wane (Myrick & Bowman, 1981). Another instance of cross-age or near-peer tutoring took place in the more rural areas of the countries. It was during the era when communities relied on one-room schoolhouses to educate their youth. All students would assemble in one classroom, regardless of age. A teacher could not be expected to teach to such a variety of age levels, so near-peer tutoring was the norm. An older student who had already mastered a given lesson would work with a younger student just beginning the lesson. This form of tutoring not only benefited the younger student, but the older student was able to reinforce his or her learning and benefit from the experience as well. Ultimately, as urban areas began to expand, large school buildings were erected which allowed for children to arrive and attend school divided by grade level (Myrick & Bowman, 1981).

### 2.5 Reading Buddies

To help establish a program that would encourage greater physical activity involvement and healthy awareness, I modeled a program after reading buddies. Reading buddies, as described in Teacher Vision (2010), is a program in which two or more individuals read together. For example, older students can read with younger students, and volunteers from the community can read with students of all ages. A reading buddies program can help model good reading. A reading buddies program called “Martha Speaks Reading Buddies” proved to be effective at promoting both old and young buddies’ knowledge of target words emphasized in their program (East Tennessee PBS, 2011). The benefits extended to other literacy and social aspects as well, as the fun atmosphere created in the classroom proved to be a plus, which then lead to an increased enjoyment and appreciation of books and reading (East Tennessee PBS, 2011). As with
any skill, reading needs to be practiced on a regular basis, and with this practice as well as modeling, students can improve their skills. A reading buddies program allows older students the opportunity to develop fluency as well as a sense of pride in their accomplishments. In addition, older reading buddies develop more confidence, self-esteem, leadership abilities, organization skills, and personally invest in their little buddies’ improvement (East Tennessee PBS, 2011). Tiessen and Dust (2006) found similar benefits to reading buddies as well. Their study examined the effectiveness of a reading buddies literacy program, using older students as mentors to younger students. They described the results of the program to be a “win-win” situation for both the older and the younger students (Tiessen & Dust, 2006). Possible benefits to the older students included improved confidence in reading, improved self-esteem, more knowledge of picture books, strengthened ability to read aloud, increased cognitive awareness, and opportunities to make connections from past learning. The younger child also benefits from the individual attention and immediate feedback they receive from the older student (Kreuger & Braun, 1999).

As a former elementary school teacher, I had the opportunity to watch the interactions between my grade six students and their grade two reading buddies. It was this experience that provided the inclination to do something very similar, with physical activity being the lead component. Some of the components that I borrowed from the reading buddies program were the use of the older students as role models, conducting reading buddies as an in-school program, and using activities to develop and promote skills. Play Pals, like reading buddies, uses reading to promote healthy literacy but also incorporates an active games component to promote physical activity.
Table 2.1 Play Pals and reading buddies comparison, illustrates the similarities and differences between a reading buddies program and the proposed Play Pals program.

### Table 2.1

<table>
<thead>
<tr>
<th>Program</th>
<th>Play Pals</th>
<th>Reading Buddies</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Aim</strong></td>
<td>Model healthy active living</td>
<td>Model good reading</td>
</tr>
<tr>
<td><strong>School Setting</strong></td>
<td>Classroom, multi-purpose room, gymnasium, outdoors</td>
<td>Classroom, room conducive for reading</td>
</tr>
<tr>
<td><strong>Age Grouping</strong></td>
<td>Older female student paired with younger female student</td>
<td>Older student paired with younger student</td>
</tr>
<tr>
<td><strong>Activities</strong></td>
<td>Active games, fitness stations, health literacy lessons</td>
<td>Silent reading, reading aloud, illustrations, and reflective logs</td>
</tr>
<tr>
<td><strong>Benefits to Older Students</strong></td>
<td>Increase physical activity and healthy literacy, develop lifelong healthy behaviors, and promote healthy active living</td>
<td>Develop fluency, sense of accomplishment, increase motivation to read, promote good reading practices</td>
</tr>
</tbody>
</table>

### 2.6 Significance of Study

Ultimately, the goal of this study was to determine if and how near-peer mentoring and role modeling could be an effective program implemented by the schools to promote physical activity and health literacy of adolescent girls. By increasing their awareness about themselves and their physical abilities, I felt this greatly increased the likelihood that adolescent girls would develop healthy behaviours that will last a lifetime.

It was anticipated that this study would further lead to the development of promotional activities and ideas that focus on promoting healthy, active lifestyles to young females in our school system through both literacy and physical activities. This research will help to
develop a program that allows middle school girls to mentor and role model healthy, active lifestyles for girls in the primary grades.
3. Methods

3.1 Introduction

The following chapter outlines the methods that were used to determine the effectiveness of the Play Pals programs in helping to promote physical activity and health literacy in early adolescent girls, as well as its sustainability in the school setting. The chapter will focus on the research design used in this study, qualitative research, case studies, trustworthiness, obtaining school-site approval, disclosure, data collection and analysis, participant selection and recruitment, and ethical considerations.

3.2 Qualitative Research

Qualitative research can be described as a method of investigating the “quality” of relationships, activities, situations, or materials (Fraenkel & Wallen, 2009). Furthermore, qualitative research places more emphasis on describing in detail all that occurs during a given situation, rather than comparing the effects of a treatment, as with quantitative research methods. Fraenkel and Wallen (2009) state five general characteristics of qualitative research: (1) the natural setting is the direct source of data, and the researcher is the key instrument, (2) data are collected in the form of words or pictures rather than numbers, (3) researchers are concerned with processes as well as product, (4) researchers tend to analyze their data inductively, and (5) how people make sense out of their lives is a major concern to researchers. These points directly reflect my project in that I observed and interacted with the pre-adolescent students in their own school environment. Data were collected through focus groups, field observations, questionnaires, and email correspondence. I also looked to see how the students responded to the Play Pal program throughout its entire course, and analyzed the data as it developed. It was also up to me
to portray these beliefs as accurately as possible to be sure their voices were heard, while also analyzing their comments.

3.3 Case Study Research

This research is presented as a case study to thoroughly examine and evaluate the effectiveness of the Play Pals program for possible school implementation. A case study is an examination of a specific phenomenon such as a program, an event, a person, a process, or a special group (Merriam, 1988). Merriam also states that case studies of educational programs can be examined to bring about understanding that in turn can affect and improve practice. Furthermore, “case studies have proved useful for studying educational innovations, for evaluating programs and informing policy” (Merriam, 1988, p. 9). Three characteristics of case study research listed by Hancock and Algozzine (2006) are: 1) the research addresses a phenomenon, 2) studied in its natural context, space and time, and 3) richly descriptive, grounded in deep and varied sources of information.

The methodology associated with case study research allows the researcher to “go-deep,” in order to learn what works and what does not (Corcoran, Walker, & Wals, 2004). Because case study research involves collecting and analyzing information from multiple sources, such as focus groups, observations, and textual analyses, the researcher is required to spend more time in the environment being investigated than other types of research (Hancock & Algozzine, 2006). For this particular research study, the researcher spent a total of 25 days with the participants in the school (Appendix A). The use of multiple sources of data to study the same unit also helps to confirm the validity of the
research process, giving rise to case studies being described as a triangulated research strategy (Merriam, 1988).

### 3.3.1 Trustworthiness in case study research.

According to McGloin (2008) the trustworthiness of case study data is a major concern among practitioners and Hodkinson and Hodkinson (2001) outline several limitations to this method. Limitations in case study research include: there is too much data for easy analysis, case studies do not lend themselves to numerical representation, they are not generalizable, and they cannot answer a large number of relevant research questions. The purpose of a case study, however, is not to generalize data but to generate hypotheses and theories. This particular case study has yielded its own theories to the area of school-based physical activity programs.

Given the purpose of generating hypotheses and theories, the terms most often associated with quantitative research, reliability and validity, are not appropriate when discussing the limits of case study research (McGloin, 2008). Instead, trustworthiness is the more fitting term to describe how one’s qualitative research is academically sound (Shenton, 2004). Guba (as cited in McGloin, 2008 and Shenton, 2004) developed a model of trustworthiness and identified four criteria to demonstrate the trustworthiness of a research study; truth value, applicability (transferability), consistency, and neutrality. Truth value, or credibility, is the confidence the researcher has in the truth of their findings. McGloin (2008) details several methods, which I also employed to promote confidence in my study. These methods included direct observation, reflexivity, triangulation, and tactics to ensure honesty from participants. Direct observations of real-
life situations inherently enhance the credibility of a study, rather than trying to duplicate natural phenomenon in a laboratory setting (McGloin, 2008).

Reflexivity involves the researcher being aware of his or her effect on the process and outcomes of research (Anderson, 2008). Pillow (2003) explains reflexivity also requires a researcher to be conscious through critical accounting of how the researcher’s self-location, position, and interests influence all stages of the research process. Pillow also states that reflexivity is a continual manner of self-analysis. Gilgun (2010) outlines three areas in which researchers can show reflexivity in their research, 1) account for the personal and professional meanings their topics have for them, 2) the perspective and experiences of the persons with whom they wish to do the research, and 3) speak to the audience to whom the research findings will be directed. In the Play Pals study I made clear in the researcher background section how physical activity and children’s health has long been a career focus of mine, so this is a topic area I hold in high regard. This is a bias I acknowledge, and my views of interactions between participants or outcomes of this program may be different than someone who does not share my background or enthusiasm towards youth health promotion. Through the journaling I did my best to capture the experiences of the participants following each Play Pal session. The findings are directed towards college professors who have a high understanding of research methodology, and to school administrators who decide on programming, so I provided as much detail as possible to explain concluding findings and outcomes of this study.

Reflexivity recounts and discloses circumstances during a study to offset the potential influence of a researcher. As an example, Lipson (1991) mentions a relationship forming that may develop between case study researcher and participants
that could bias the findings. However, Lipson counters this statement by arguing that the frequent contact between the two parties allows for this relationship to be reflected upon openly and frequently. I have clearly stated my position throughout this project as being part of the process, and not just a covert observer.

Triangulation, as defined by Creswell and Miller (2000) is a “validity procedure where researchers search for convergence among multiple and different sources of information to form themes or categories of study” (p. 126). Triangulation also helps to strengthen a study by combining methods, and use of multiple methods of data collection and data analysis (Golafshani, 2003). Triangulation was used through my various data collection methods of field notes, observations, focus group transcripts, questionnaires, and email correspondence. The data were also collected from different sources to broaden my understandings regarding the effectiveness of the Play Pals program. This allowed for individual viewpoints, experiences, and observations to be verified against others to gain a richer picture of the program under study (Shenton, 2004).

Shenton (2004) also describes tactics I used to ensure honesty from participants when contributing data. First, all participants were always made aware their participation was voluntary and there would be no negative consequences for missing a session. This allowed only those girls who were genuinely interested in participating in the days’ activity to be freely involved. Also, I let the grade six girls know that there was no evaluation of their direct behaviour. Their participation would not be graded, and I would not be judging or comparing one girl’s skill level to another’s.

The limitation of not being generalizable is understandable in that the characteristics that make up this particular program cannot be exactly duplicated at
another school. Generalizability can be described as the extent to which findings found from a sample size can be applied to the larger target audience (Miyata & Kai, 2009). Some schools may not want to put forth the time to determine whether this program could be carried on in their school site. For instance, student dynamics will be different, the cooperation of faculty and staff may differ, school schedules may not be the same, and accessibility to school facilities may also be quite different. In its fundamental sense, what works at this study’s school site may not work at another school.

Play Pals is not meant to be a cookie-cutter program, but rather a road map for other schools to examine and determine if near-peer physical activity and health literacy programming can be successfully implemented for their students. School staff and administration will need to decide for themselves based upon the outcomes of this study whether this program is a fit for their school, but it is up to the researcher to make this a viable option. Miyata and Kai (2009) state it is the responsibility of the researcher to enable someone to make a conclusion about whether a situation is worth contemplating. According to Shenton (2004) it is the responsibility of the researcher to provide a reader with a sufficient amount of contextual information about the study to enable the reader to make such a transfer. The term “transferability” best describes this circumstance. Transferability, unlike generalizability, encourages the readers of the research to make appropriate connections to points made in the research to those in their own experiences. For this project, it would be up to a school’s principal or other administrator to read about this program, and decide if certain elements of Play Pals can be transferred successfully into their own school. However, as the researcher I must establish a thorough and detailed account of the study context to allow such a decision to be possible.
The third criterion for trustworthiness is the consistency or dependability of data, and if a study were to be duplicated, would the study yield the same findings (McGloin, 2008). McGloin points out that there will inevitably be some variability in data due to a study’s natural environment, and a case study is examining one phenomenon at one certain point in time. To address this issue, I, as the researcher, need to address the project’s processes in detail so that another researcher could replicate my study (Shenton, 2004). For example, providing a detailed agenda of weekly activities, as well as descriptions of some of the activities performed may assist in replicating this study in the future.

The final criterion to ensure trustworthiness is neutrality. Reige (2003) explains neutrality as a means to assess the extent to which the findings stated are the most logical and reasonable conclusions that can be made from the data. McGloin (2004) further explains neutrality as the degree to which findings are solely the result of the participants and their conditions, rather than outside influences or preferences. Suggestions made by Reige to ensure neutrality in research were followed in this paper as well. Multiple sources of data were used, general methods and procedures were explained, and data has been retained and is available for reanalysis (Reige, 2003). Furthermore, when changes in original methods or instruments have been altered, I explain the reasons for these modifications or omissions. For example, with time being of the essence, certain measures of physical activity were not taken, rather more time was spent on the focus group discussion.
3.4 Building Upon Pilot Study

This project is the continuation and extension of my completed pilot study (Miller & LeDrew, 2010). Given the opportunity to reflect on that original project has allowed me to make appropriate modifications in developing this study. The timeline for this project has been extended from three to eight weeks to broaden the scope of the study, allow for greater observation, and most importantly, allow for the possibility of deeper interactions to develop between the groups of girls. The younger Play Pals were also included in the observational research to observe the impact the program has on them. For example, their level of participation in the activities, how well they respond to the grade six girls’ acting as leaders, their ability to stick with the weekly schedule, and keep focus throughout the duration of each session were observed.

3.5 Participants and Consent

The participants in this study were female grade six students from a small, predominately aboriginal, elementary school in Saskatchewan, with 400 students enrolled in kindergarten through grade six. The school was selected based on researcher accessibility, the ease at which project admittance was granted, and the expressed need for physical activity programming by parents I had come to know through prior teaching at the local university.

All grade six females from the site-school were asked to participate in this study, which were approximately 30 girls. Participation was based on the girls’ interest in the program and willingness to commit; no girl was turned away otherwise. Prospective participants attended a brief informational session conducted by the primary researcher during the students’ lunch period. They received an information letter about the study
(Appendix B) and consent form (Appendix C) which was brought home to their guardians. At the principal’s request, prior to this meeting a letter was also sent to the school detailing the study along with the participants’ responsibilities. This letter was then forwarded to the parents (Appendix D). The target sample size was six to ten girls, however, all grade six girls who were interested were included in the study. Sixteen grade six girls attended the initial focus group, with most sessions having approximately 10 grade six girls in attendance. Of the 16 girls, seven were from the French Immersion program. A consent form and informational letter were also given to the school principal, the grades six and two teachers, and the grade two females. Although they are not the focus of this investigation, ethically it was important that consent was received from all parties from whom data was collected, and that the parents of the grade two girls were aware of their children’s involvement. Ten grade two girls returned consent forms and participated in the first session, with approximately the same 6-8 girls regularly attending. Table 3.1 provides a list of the attendance for all Play Pal sessions.
Table 3.1

Play Pals attendance numbers by session.

<table>
<thead>
<tr>
<th>Session and #</th>
<th>Grade Six Girls in Attendance</th>
<th>Grade Two Girls in Attendance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training 1 and 2</td>
<td>17 and 16</td>
<td></td>
</tr>
<tr>
<td>Focus Group 1</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>Lesson Planning (LP) 1</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>Physical Activity (PA) 1</td>
<td>12</td>
<td>10</td>
</tr>
<tr>
<td>Health Literacy (HL) 1</td>
<td>12</td>
<td>9</td>
</tr>
<tr>
<td>LP 2</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>PA 2</td>
<td>10</td>
<td>6</td>
</tr>
<tr>
<td>HL 2</td>
<td>2</td>
<td>10</td>
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<tr>
<td>LP 3</td>
<td>16</td>
<td></td>
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<td>HL 3</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>LP 4</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>PA 4</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>HL 4</td>
<td>6</td>
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<td>PA 5</td>
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<tr>
<td>HL 5</td>
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<td>LP 6</td>
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<td>HL 6</td>
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<td>5</td>
</tr>
<tr>
<td>HL 7</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>Focus Group 2</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>
Grade six girls were selected as the participant age group based on the literature that suggests this group appears to be at the critical age at which physical activity begins to drop dramatically in girls (Grieser et al., 2006; Vu et al., 2006). I personally spoke to all eligible participants during their school afternoon recess period about the program. The grade six girls were paired with a grade two female student, of their choice, from their school. Since the grade six girls outnumbered the total grade two participants, some grade six girls paired up together to mentor a single grade two student. This worked well since not all the grade six girls were available for every Play Pal session. From my observations, generally the same grade six students would pair up together and work with the same grade two student or students when present.

Given that this study was a volunteer in-school program, perfect attendance was not expected. This does make it difficult to express the actual number of participants in numerical form, as the number of girls involved varied from session to session. Also, when observations were made or focus groups were facilitated, not all the girls were present. According to Hodkinson and Hodkinson (2001) some researchers regard this lack of “precision” as a serious weakness. However, the focus of the Play Pals research was not about the number of participants who were involved, but rather the richness of the data was drawn from the overall experience of each girl present on that given day of data collection.

Being heard is of critical importance in qualitative research. The commonly referenced phrase “children should be seen, not heard” is not an appropriate sentiment in regards to research involving children as participants. Children, like adults, have their
own points of view, have the right to be heard, and are capable of speaking for themselves (Einarsdottir, 2007). If researchers want to get to the heart of the issues that are affecting children today, we must go to the source and speak with the children directly. For example, it has been shown that parents may not paint an accurate picture of their own child’s health, often portraying a more positive image than what their children do themselves (Christensen & James, 2000). Thus the best way to ascertain the insight and perspective of children is to personally and directly ask them. Some challenges do arise when seeking information from children. For example, some children may not be used to having an adult interested in their perspective, or asking for their opinion (Einarsdottir, 2007). Furthermore, children may perceive the adult as an authority figure and may aim to please him or her by giving the answer the child thinks the adult is looking for (Einarsdottir, 2007). Researchers can overcome these challenges by establishing a good rapport with the children from the onset of the study. Fortunately for myself, a few of the girls already knew who I was, as I had taught their mothers at the local University. Their mothers had told them positive things about me and they were eager to meet me for themselves. Their excitement seemed to carry over to their friends as well.

3.6 Disclosure

Throughout the Play Pals program, my first emphasis was the overall enjoyment of the participants. While keeping in mind that this is a thesis project, I wanted to make sure that all participants had a positive experience first and foremost. I did not want the students to feel they were part of a research project, but rather participants in a fun in-school activity. The older girls were aware however that this program was my school
project. This did not appear to affect the program, but they did originally ask what kind of grade would be received and who was marking the project. My response to these questions were simple and to the point, as I explained I was hoping for a passing grade and that my teachers would be the ones marking the project. They seemed pretty satisfied with these answers, as the topic did not come up again until the final focus group.

I also knew two of the parents who between them had a total of four daughters involved in this project. I was not sure if this would influence the project in some way, either positively or negatively, in terms of attendance or the project being discussed at home. The parents of these girls would tell me when their daughters would come home and share that day’s activity with the family, and play the games with their family members, so it was nice to hear that the girls were enjoying the new activities enough to play and share with their family once they returned home. The activities shared were the circle tag game, the cooperation games, and the yoga poses.

3.7 Play Pals Sessions

The first Play Pals meeting occurred at a mutually agreed upon time by the teachers of both sets of grades. Initial ideas were lunch and recess periods, with recess being the time when all students would be back on school property. During the first meeting, grade six participants introduced themselves to their Play Pals, and explained to them the Play Pals program (e.g., why active playing is good for them, games and activities to be used). After the initial introduction, the participants took time to model and teach the younger students a new game to play. Through this instruction, the participants immediately took on the role of mentor and role model. They then assisted
their Play Pal in playing the new game. The session concluded with the ending of the
game and words of encouragement from the participant to their Play Pal. I was present
during all sessions and wrote in my journal my thoughts and observations from each
session.

Play Pals offered a routine literacy opportunity for the older girls to enhance their
health literacy by building upon their own basic reading skills, and making it specific to
health literacy topics (i.e., teamwork, active living, nutrition) they may encounter on a
daily basis. According to Kickbusch (2006), much of what we do throughout the day is
relevant to health, what we eat, how much we choose to move, how we socialize and
interact with others. And the choices we make as adults are often established through
behaviours we adopted as children. Play Pals covered the above choices mentioned by
Kickbusch.

Like the more physically active portion of the Play Pals program, I facilitated the
health literacy sessions and provided the girls with the reading materials for each week.
In a typical session I would begin with an introduction, letting the girls know what topic
would be covered, then briefly go over that day’s activity. This portion was brief because
the lesson plan had already been discussed in greater detail with the grade six girls during
the lesson planning session earlier in the week. It was then up to the grade six girls to
carry out the lesson with their pal during their group sessions. Play Pals also created an
environment that empowered the grade six girls to take ownership of the program. This
was achieved by choosing and developing activities, making sure all grade two girls had
a pal, leading their small group through the selected activities, and retrieving the younger
girls if they had not yet shown up for a scheduled session, which according to Kickbusch (2006), helps children become engaged in health.

I continued to meet with the older participants once per week for lesson planning. This meeting allowed the participants to provide feedback on how the session went, ask questions, and plan for the next Play Pal session. I was listening to hear how the participants were responding to being mentors and how they felt the program was going. These insights were recorded using the researcher’s journal both during the lesson planning session and immediately afterwards.

3.7.1 Timeframe. The timeline for the Play Pals portion of this study was nine weeks. This included one week of recruitment, a week spent becoming familiar with the grade six girls and instructional training, and seven weeks of informal focus groups and Play Pal sessions (referenced in Appendix A). The week of training was aimed at increasing the older participants’ perceived level of skill competency as well as providing them with cues on how to best model and mentor the same skills to their play pal. The goal of this week’s training was very important in setting the tone for the entire program. I wanted the participants to feel they had the tools and capability to model for and mentor their younger play pals. I found the training session to be useful for both myself and for grade six girls. I was able to build upon the rapport I had originally established. I was able to learn the names of the grade six girls, which I feel is important in showing the girls respect. The grade six girls were able to use this time to ask me questions regarding the Play Pals schedule, for example the days and times. They also seemed concerned with what to do if their Play Pal was too shy to play. I first gave some of the other participants an opportunity to offer suggestions, some of these included asking them
about their family or their favourite subject, or combining with another Play Pal group so they could play with a friend. I also suggested that some of the younger girls might not feel capable of performing a skill, so as their Play Pal mentor, the grade six girls may need to simplify a task. For example, they could allow a ball to bounce to before catching it, rather than trying to catch it out of the air. While the participants may have worked with younger students in the past in a reading buddies setting, Play Pals presented a different atmosphere than they had been used to since they will be working with their pal in a more “play-oriented” environment. Allowing a week or two for students and teachers to adjust to the new semester, I began this project during the winter season, and concluded it in the spring.

3.7.2 Implementation of program. During the first focus group session, the participants learned the name of the younger female student who served as their Play Pal for the duration of this program. During this time I was also working with the girls on developing age-appropriate games they would teach their Play Pal during their first meeting. I assisted the girls on the best ways to teach a game, offering encouragement, and providing tips for working with younger students in an active setting. The games the girls chose from had been pre-selected by myself based on several criteria. First, due to the relatively short amount of time each session lasted (i.e., twenty minutes) the games needed to involve minimal instruction. This limited the amount of confusion and apprehension in both sets of girls. Second was the availability of equipment. Not knowing the amount of equipment available to us, we chose from games that involved little to no equipment. This also helped with the time issue, as there was minimal need for set-up or take down. Lastly, the games chosen could all be played indoors, outdoors,
and either in a gymnasium or cafeteria, so weather was not an issue when scheduling and completing sessions. A complete list of games and brief description can be found in Appendices E, F, and G. Based on insights gained from the Play Pals pilot study, specific sports and fitness stations were also implemented. The participants in that study made it known they would be more excited about the program if they knew there would be more variety to the activities besides the typical “recess games,” such as Duck Duck Goose, British Bulldog, or variations of tag.

From a practical standpoint, it was not realistic to assume that all girls would remain in the program throughout its duration, or would be available for every focus group and Play Pal session. Detailed schedules were given out to the principal and the classroom teachers involved in this study. Every attempt was made to keep the weekly schedules the same, with lesson planning held on Mondays, and Play Pal sessions held twice per week on Tuesday and Thursday. Twice during the program the times had to be switched from the regular morning time slot to the after recess slot due to my teaching schedule. Accommodations were made in the event that a participant or younger student was absent. For instance, an older student took on an additional Play Pal for the day, or partnered up with a classmate if their Play Pal was absent. Based on the Play Pal pilot study, the school was small enough that most students knew one another, and felt comfortable taking on a new pal when necessary.
3.8 Data Collection

Qualitative data gathering tools used throughout this study included audio-recorded and transcribed focus groups, researcher field notes and observations, lesson plans chosen by the female participants, questionnaires and email correspondence with the school principal and classroom teachers. Fargas-Malet, McSherry, Larkin, and Robinson (2010) advise researchers to begin any interview or focus group with questions or topics the children are thoroughly knowledgeable about. Researchers may also want to engage the children in a period of “free-narrative” to allow the children to ease into the conversation. Fargas-Malet et al. (2010) also suggest keeping eye contact, nodding one’s head, and using verbal prompts such as “wow, tell me more about” to show the children the researcher is listening and wants to hear what they have to say.

3.8.1 Focus groups. According to Kennedy, Kools, and Krueger (2001), focus groups are used to understand perceptions, feelings, attitudes, and opinions that are believed to be relevant to an issue under study. “Focus groups specifically with children free both the children and the investigator from data gathering limitations placed by literacy levels that afflict many quantitative methods of self-reporting” (p. 185). Kennedy et al. (2001) list three means in which focus groups elicit children’s involvement: 1) enjoying group involvement through children’s higher level of comfort in the social context of peers, 2) facilitating self-disclosure and decreasing self-consciousness with a peer audience instead of an adult and 3) modeling acceptance of children’s own language and statements by both the other participants and a moderator who encourages production of elaborated accounts. I felt I was able to accomplish each of these objectives, which allowed for an open conversation, with all the grade six girls...
sharing an opinion, story, or suggestion. Although some girls were obviously more involved and out-spoken than others, I was pleased to see that all the grade six girls felt comfortable enough in this setting to share their thoughts. The grade six participants took part in two focus group discussions. One occurred at the very beginning of the study, prior to any Play Pal sessions, and the second focus group took place the day after the completion of the Play Pals program.

The first focus group with the grade six girls helped to ascertain the girls’ current physical activity preferences, their thoughts and feelings on what it means to be a role model and mentor in general as well as in their reading buddies program, and their personal physical activity trends. A list of guiding questions is in Appendix H.

Sixteen grade six girls participated in the first focus group, which lasted 30 minutes. In hindsight I would have preferred to break the group in half to allow for more opportunities for all the girls to talk, but as I soon learned time was a major obstacle for most Play Pal sessions.

In the second focus group, we discussed the same areas, and I also asked the girls about their opinion on the Play Pals program and mentoring the younger girls. By comparing their responses from the two focus groups, I was looking to see how the girls responded to mentoring both physical activity and health literacy as it relates to their well being. For instance, they were able to discuss various ways of being active, how to fit physical activity into the day, and identifying obstacles in their life to being physically active. An increased awareness of these areas does help in answering the research questions of whether Play Pals promotes physical activity and health literacy.
3.8.2 Observations and field notes. Observation in research is used in two ways: structured and unstructured (Mulhall, 2003). This study utilized unstructured observation. According to Mulhall (2003), unstructured observation is used to understand and interpret behaviour. A researcher, utilizing unstructured observation, does not walk in with a checklist of behaviours to look for, but rather walks in with no predetermined notions of what will strictly be observed. This allows for ideas to change as the researcher collects data and becomes more familiar with the setting in which they are immersed. Mulhall (2003) explains in unstructured observation the researcher may adopt a number of roles from full participant to complete observer. In this study, I found myself taking on several roles, from full on participant during the World War III and Circle Pass games to a part-time participant when I would introduce and model an activity, then step to the side and allow the girls to be the leaders and participants. I never felt like I was a complete observer, as I was always mindful of the time and the girls’ interactions with one another. I would walk around the gymnasium to check in on how the groups were doing, reminding them of how much time they had, or offering a suggestion if they were having difficulty with a certain skill. An example of this was during the yoga stations; one group was having difficulty interpreting a pose, so I helped to explain and demonstrate the pose.

Field notes, as defined by Montgomery and Bailey (2007), are written records of observational data produced by fieldwork. Field notes have specific content that includes descriptive and interpretive data based on the observational experience of the researcher. As a data-gathering tool, field notes consist of descriptions of social interactions and the context in which they occurred. Field notes can be taken at the time of observation or
immediately afterwards, depending upon the context of the study.

Field observations and researcher journaling occurred throughout the study. Field observations were used during the lesson planning and Play Pal sessions, with journaling of these observations took place immediately following each session. As both the researcher and facilitator taking notes during a session was next to impossible. First, my mind was always concerned with participant safety, especially in a physical activity setting and I wanted to make sure all activities were running as smoothly as possible. Referring to Mulhall (2003) even those using unstructured observation can have an idea of what they want to observe, but do so without a concrete checklist. When the sessions began, I too, had a general sense of what I may be looking for during the group activities. Such behaviours and ideas were the types of physical activity and healthy literacy activities that are selected, the opportunities for skill-building, as well as observing the interaction between the older and younger Play Pals. These observations assisted in answering the research questions of whether Play Pals successfully promotes physical activity and health literacy. For example, on days when Play Pal sessions focused on physical activity, the researcher looked to see the amount of time the participants were engaged in physical activity, and the extent to which physical activity is discussed between the older and younger Play Pals. This was done by constant check of the clocks, taking note of how long an introduction lasted, walking from group to group and listening to conversations going on between the girls. Again, such notes were then recorded into my journal once all the girls were dismissed back to their classrooms.

Observations were also used to help determine the sustainability of the program. Since I was also the program facilitator of Play Pals, I saw up-close what challenges
arose on a daily basis, what aspects of the program worked well and which did not, as well as the level of involvement required to successfully conduct this in-school program.

3.8.3 Lesson plans. During the lesson planning sessions the grade six participants had the opportunity to select activities that relate to both physical activity and health literacy. One Play Pal session each week focused on health literacy; for example, reading a health-related story or performing an activity linking physical activity and literacy (Appendix I). The other Play Pal session focused on physical activity. The physical activity sessions ranged from yoga circuits, to “playground games,” to more structured physical education lessons. The structured lessons are from the SaskSport Inc. Children in Sport Manual. The resource manual provides lessons on activities such as balancing and jumping, manipulative games, and skill development. Each lesson is broken down into developmentally appropriate activities for beginners (ages 5-6), novices (ages 7-8), and rookies (ages 9-10), and provides teaching cues, a skills checklist, ideas on how to create a positive environment, and delivery strategy suggestions (Appendix J).

3.8.4 E-mail correspondence. The school’s principal was an excellent source for information through consistent email dialogue. This dialogue began in mid-October 2011 with an introduction about my program, and inquiry as to whether he would be interested in allowing me to conduct Play Pals at his school. E-mails with the principal continued between he and myself, as it was a convenient and open means of communication. These emails provided data related to the sustainability and effectiveness of the program. The principal verbally consented to the use of his email messages during my initial meeting with the grade six and grade two girls.
3.8.5 Questionnaires and interviews. Open-ended questionnaires were given to the 5 adult secondary participants in this research study: the school principal and the grade two and grade six teachers (Appendix K). The questionnaires with the principal and teachers helped provide insights into what makes a program sustainable within their school, and if Play Pals is such a program. These questionnaires were emailed after the completion of the Play Pals program. Examples of questions asked were: Do you see a need for school-based physical activity/health literacy program? How do physical activity levels compare in the girls between Physical Education and recess? What characteristics make a program like Play Pals sustainable?

Informal interviews with the grade two girls took place throughout the program. These interviews aided the researcher in getting a sense of the impact the older Play Pal made on their younger Pal. Throughout the Play Pal sessions I would ask a couple of the girls questions such as, 1) Are you having fun with your pal today?, 2) Have you played this activity before?, 3) Did you learn something new today? All the younger girls, when asked, gave a yes answer to questions 1 and 3, and a no to question 2. The no answer to question 2 was important because it showed that Play Pals was providing new activities for these girls that they would not normally be doing throughout a school day. On the final day, while handing out the “Children on the Move” books as a thank you gift, I was able to ask the 8 grade 2 girls who were present, “what has been your favourite activity in Play Pals?” The most popular activities when asked of them were the sponge knock-off game, volleyball, and the circle pass game.
The role of mentoring and role modeling was significant in this study, and it was important to see what type of impression the older Pals are making in terms of promoting physical activity and healthy literacy to their younger Pal (research question 1 and 2). Also, since the grades six and two girls’ general reaction to the program was positive, this could help in determining if this program should be continued (research question 3).

3.9 Ethical Considerations

Before the study commenced it received approval from the University of Regina Research Ethics Board. An application was submitted which thoroughly outlined the study’s procedures, possible risks to participants, how participant identity would be protected, and the possible benefits of the study. All forms and letters used to obtain consent and recruit participants were also included with the ethics application.

The student participants were asked to sign a letter of assent prior to the start of the first focus group. Participants also received a parental permission-to-participate letter before the study commenced, and signed a non-disclosure agreement (Appendix L). Given the age of the students, it was hard to guarantee the confidentiality of all focus group discussions. Confidentiality and anonymity was limited due to the small number of girls that participated from a small grade six class. There was the possibility that individuals could be identified through the context of the responses, for instance if they mentioned the number of siblings in their family or certain recreation teams they have played on. All participants were asked to keep everything that was said in private, and that it was not to leave the room. To protect the identity of the students, pseudonyms, chosen by the students themselves, were used once transcribing and coding began, and every effort was made to remove any indentifying data, such as mentioning the
occupation of a parent. Students were reminded at the beginning of the program that they were free to leave the program without consequence, and their participation was strictly voluntary.

3.10 Data Analysis

Data analysis is an ongoing, repetitive process that begins at the early stages of data collection, and continues throughout the study (Bradley, Curry, & Devers, 2007) allowing for questions to be refined and new opportunities of inquiry to develop (Pope, Ziebland, & Mays, 2000). Data can include verbatim notes, transcribed recordings of interviews or focus groups, jotted notes, field notes, diaries, and a researcher’s own reflective notes (Pope et al., 2000). Data from this project included field notes, observations, focus group transcripts, email correspondence, and questionnaires. In all, data consisted of roughly 20 pages of hand written journal pages, eight pages of transcripts, three pages of typed notes, and 12 pages of adult feedback via the questionnaires.

Data were organized and analyzed using the “scissor and sort technique” described by Stewart, Shamdasani, and Rook (2007). The first step in this method was to go through all transcripts and notes and identify those areas that relate to the research questions. Those areas were then colour-coded to reflect the research question it helped to answer. The information can be as simple as a single word, to a phrase spoken by an individual, or even a long exchange between participants (Stewart et al., 2007). Grouping the data into categories allowed me to categorize and interpret the data most effectively (Chakravarthi, Nagaraja, & Judson, 2010).
The purpose of identifying any common themes is to provide significant insight into the impact of adolescents mentoring primary children may have towards promoting physical activity and health literacy. Themes, as described by Bradley et al. (2007), are fundamental concepts that characterize specific experiences of individual participants, and are recurrent unifying concepts or statements about the subject of inquiry. Morse (2008) eloquently characterizes themes as the meaningful “essence” that runs through the data. Morse continues her explanation by comparing a theme in research to a theme found in opera. Just as an opera has a recurring theme that ties a storyline together from beginning to end, so too does research. The researcher develops themes by reading and re-reading of data, and is characterized as an inductive process.

All transcripts, field notes, and other texts were coded according to the three research questions. I classified these texts into categories as they related to promotion of physical activity, promotion of health literacy, and whether or not Play Pals is a sustainable program. From there, as patterns were identified within the three areas, I broke down the categories further. These patterns were then identified as sub-categories that fell under each research question, and were given a thematic title to represent the focus of each. I was mindful of any other data that may continuously arise but does not fit into one of the three research questions, as they may still be of importance to the overall program.
4. Findings

4.1 Themes

The findings were divided into three categories related to the research questions. They were developed to help organize and answer the three research questions focusing on the program’s promotion of physical activity during recess, promotion of health literacy, and sustainability of Play Pals. The themes will be examined in greater detail, to further explain how the Play Pals program was a successful school-based health promotion program.

4.2 Play Pals, Right Time Right Place

When planning a school-based physical activity program, it was important to find a time during the day that did not interfere with the students’ academic schedule. Another key point was to provide the girls with a sufficient amount of time to interact with their pal. This theme will explore the time of the day Play Pals was held, with subcategories following up with the time of year Play Pals was held, as well as how the time chosen proved to be an added bonus to the exposure of the program.

Recess seemed to be the best fit for the teachers, as students would not be missing from their regular classes. An unexpected benefit to having Play Pals during recess was that other students from the school were able to see what we were doing, and proved to be a motivator for future play. After gathering and reviewing data from the questionnaires and focus group transcripts, recess appears to be an ideal time to promote and engage the students in physical activity. First, because the girls acknowledged this was a time of day they were mostly inactive, when they did not need to be. Second, the
school had space availability in their gymnasium and library to use for our various games and activities.

During the initial focus group session, the grade six girls were asked if they preferred recess or physical education. The purpose of this question was to understand the girls’ perception of the two periods, and whether recess would be a time during the school day that would be an optimal time to conduct the Play Pals program. If the girls had a strong desire to attend their recess, then I would have made attempts to reschedule the program so the girls would not have missed out on this physical activity opportunity. The overwhelming answer from the girls, however, was that they preferred physical education class to recess. Several reasons were given for this preference including being able to play and learn new sports, interacting with different students from one’s class, the activities are better organized, and physical education class provides more opportunities to be physically active. My initial impression from these comments was that the girls want to be physically engaged in activities, but require guidance in doing so. In explaining how physical education allows for greater interaction with students, one girl explained, “I prefer PE over recess because you get to communicate more with others, like at recess everyone wants to be more independent and they just like to hang out with their friends.” Another girl added,

I prefer PE, because PE gives you a chance to learn how to play with others and work in a group you normally don't play with at recess. Like at recess the boys wouldn't normally let you play road hockey because you’re a girl. In gym they have no choice, so you can interact with other people in your class.
Play Pals offered the older girls an opportunity to interact with younger students they normally would not have had a chance to play with. At their school, the playground/recess area is divided by upper and lower grades. The grade six girls have recess behind the school, while the grade two students have recess in front of the building. Play Pals created the opportunity to bring a small part of these segregated groups together during a time of time when they normally would not be interacting and playing together.

The girls also thought they were considerably more active during physical education than they were at recess. One of the grade six girls stated, “I prefer PE over recess, because exercise is really important and at recess most people just go sit on the swings or just sit down. In PE you’re very active and energetic.” Another student further explained, “At recess sometimes we just hang out with our friends and talk, and at gym I think we are more active.” To follow-up on the decision of having Play Pals during their recess period, the girls were asked during the final focus group if having the program during this time was favoured or if they would have preferred it after school or at a different time during the school day. Almost in unison the girls said that during school is better. One of the girls explained, “If it was during school hours I am likely to be more committed, it’d be easier to attend, and you have time to get there.” Offering the program over the lunch hour was an original idea prior to the start of the program. When asked if this would be a viable option the girls said it would not. Many of the girls choose to walk or ride a bike home to eat their lunch, or there are other programs such as intramurals and drama that are already scheduled over the lunch hour.
Given the responses by the principal, teachers, and the grade six girls regarding the girls’ level of physical activity at recess, as well as the busy school-day schedule, holding Play Pals over the recess period does appear to be the most effective time during the day to attempt a physical activity promotion program. With an objective to determine if Play Pals is a sustainable program, I felt it was very important to establish a time during the day that would increase the likelihood of full participation and was most convenient for students and school staff. The recess break offered such a time for all those involved in the program.

4.2.1 Good option in September and when the cold sets in. Given that the older girls almost all expressed a preference of Physical Education over recess, I was concerned about how active and energetic they would be about the recess activities we had planned. Throughout the course of the Play Pals program, I noted that the older girls were always sure to ask me a variation of the same question; “can we stay longer?” or “we get to stay five more minutes right?”

An argument could be made that the older girls only wanted to remain in Play Pals to avoid going back to their regularly scheduled class. One girl made a comment during the final focus group, albeit laughing, when she said she enjoyed Play Pals because “we got to miss a lot of school.” If I had not been present for all the sessions, nor had an opportunity to speak with the other participants I may have taken this comment more seriously. However, knowing this student, seeing her enjoyment and listening to her give insightful comments about the scheduling and need for Play Pals, I did not take this as a sole reason for why she liked Play Pals. It was this student who made the suggestion during this final group that Play Pals may have better attendance if it
was held in the fall, stating, “even the Fall would be good, because it’s just starting to get cold and we don't have as much going on at the beginning of the year.” She also went on to describe the difficulty of being active during the colder months, and why Play Pals was fun because it gave them a structured activity, she said, “during the wintertime we only went out half the time, we’d stay in and do homework.”

4.2.2 New game for recess!  An unexpected benefit of having Play Pals during the recess period was the exposure and attention we received from the students not involved in the program. We generally had eyes on us at all times, either from the other students and teachers out on the recess yard, the librarian and other staff using the library, the physical education teacher sitting in his office or students simply walking by in halls.

The grade six students quickly caught on to the program, and were well aware that some of the girls were participating in an extracurricular program. For example, I often observed and overheard, while waiting outside the grade six classrooms, the boys lining up for recess and yelling to the girls that Play Pals was ready, or that their Play Pals teacher is here.

The older girls also had an audience from their own classmates and friends whenever we used the recess yard for activities. While the girls in Play Pals were actively participating in the game or activity of the day, they usually had a friend or two idly sitting or standing by watching the action. It was during the Circle Pass game that a friend made a comment to one of the participants that they should play this game during their afternoon recess. During the final focus group, the girls brought up this situation and stated, “Yeah, we play the circle pass game now.” The day prior to the final focus group the girls were introduced to the sport of team handball. One of the girls brought
this sport up during the focus group, saying, “I really liked the handball yesterday, I wish we could’ve played that more.” This again would indicate that Plays Pals was able to promote physical activity by providing the students with additional means to be physically active.

A similar situation had similar potential during the final Play Pals activity session. The girls had gone through a circuit of yoga poses with their younger pals, with each station containing a picture and instructions on how to properly perform the pose. I was pleasantly surprised by the how well they enjoyed the yoga, and especially that they took an interest in continuing with the exercise. At the end of the session, I noted the older girls asked if they could have the papers, and if they could make copies of them for use later on. Unfortunately, the final group took place the following day so I was unable to do a follow-up to see if any of the girls continued with the yoga.

4.3 Awareness of Girls’ Health Literacy Through Play Pals

Play Pals was created to not only promote physical activity, but also provide its participants with tools to help make healthy lifestyle decisions. As stated earlier, being health literate allows for an individual in any situation, to make health appropriate decisions based on an understanding of facts, issues, options for action, and consequences. Incorporating health literacy into Play Pals was an avenue for this. When not actively engaging in a game or sport, the Play Pals (the grade six girls with their grade two Pal) still met once a week to partake in activities that allowed them to learn about and discuss healthy active living, as well as reinforce literacy skills. Topics covered were: 1) teamwork and cooperation, 2) incorporating physical activity into their daily lives, 3) role modeling and 4) eating a balanced and varied diet. These topics were
covered using the book, “Children on the Move: An active living alphabet” (LeDrew & Anderson, 2001), every day situations (role modeling good behaviour) and online-posted short stories (Appendix I).

After speaking with the grade six girls, the health literacy portion of Play Pals was a welcome addition to a program that had been recently removed. It was learned through the focus group that the grade six students no longer participated in reading buddies, so having this included in Play Pals was an experience the girls were glad to have back. One of the girls added, “I liked it because we got to hang out with the little kids and teach them stuff. I really liked it because they took away our reading buddies. The girls also said this was more enjoyable than their old reading buddies, stating,

I liked it too, because in reading buddies, you just do reading, this gave us something to actually do, we got to be active which was fun. It’s more fun to get up and move with little kids because when you’re just reading they start complaining.

For Play Pals, we often tied in an activity to correspond with the day’s health literacy lesson. For example, after reading and discussing the lessons learned in the cooperation focused short story, “The Big Match” (Sacristan, 2012), the girls spent the remaining five minutes of their time playing cooperative games. This provided a living example of how working together as a team is often much easier than trying to go alone as an individual.

Reading from the Children on the Move (LeDrew & Anderson, 2001) book proved influential to the grade two girls’ behaviour. The grade-two teacher commented in her questionnaire, without expanding, that she now sees the Play Pals girls in her class mimicking the actions from the book.
In all, the Play Pals program provided the participants with an opportunity to read, discuss, and apply issues involving active living. This seems to be a welcome addition especially for the grade six girls who no longer have reading buddies. As one grade six teacher noted, the inclusion of a literacy element provided the quieter girls, who are usually not involved in athletics, a chance to do something fun and positive. I feel having the literacy element was a draw to some of the girls, who otherwise would not have participated if this program if it had been solely about participating in sports.

4.4 Practicing Games at Recess to be Better Leaders/Mentors

In my review of literature I stated that near-peer mentoring allows children the responsibility to care for and help others, and that it can be an empowering experience (Topping, Peter, Stephen, & Whale, 2004; Goodlad & Hirst, 1989; and Jenkins & Jenkins, 1981). I feel these characteristics clearly came through in the grade six girls. The sub-categories to follow will provide further insight into how Play Pals enabled the grade six girls to care for other students, put their younger pals’ interests ahead of their own, and for some, it gave the opportunity to participate and lead activities. Through the course of the program, the grade six girls displayed various actions and voiced opinions that lead me to conclude that Play Pals provided an arena for the development of leadership skills. It was the school principal who recognized and articulated an effect the program had on the girls. He wrote about the influence of the program,

I think that the older girls appreciated the interaction with the younger students. It made them feel that they were needed when helping others. It gave the younger girls an activity to look forward to and it also gave them a role model within the school.
I saw this take in several of the activities the grade six girls took part in. For example, during such games as “Sponge Knock-Off” and “Circle Tag” the girls used their lesson planning time to learn the game themselves, develop tactics and strategies to best play the game, and used this knowledge to help teach the grade two students to be successful at the game as well.

At this particular school, the grade six students were the oldest, so the program could possibly be designed so that each year, the grade six students participate in Play Pals. This could provide them with a program to look forward to, and associate with being the oldest in the school, and allow the girls to further develop as mentors and role models. I observed the girls perform tasks that included helping younger students put on winter coats, hats, mitts, and boots prior to going outside, and helping the younger students find a place to sit when they would be taking a large group photograph for a spirit day event. The girls also mentioned they try not to run or be loud in the halls, especially when the younger students are present. These are duties that are not structured by the school, but the girls perform on their own. The girls offered a couple explanations during the focus group, stating, “I think us in grade six because we’re the oldest kids at the school, we set a good expectation for the younger kids who are just beginning at this school and don’t know what is happening.” Another student added, “Like when we walk down the hallway quietly it shows them they should be doing the same. They catch on to what we’re doing.” To further back up this student, another girl followed with, “Like Deedee said, when we walk quietly they are expected to do the same, so if we fight or push, they might be more up to fighting or pushing too.”
The older girls demonstrated a great deal of responsibility and leadership when they were asked to develop a game they could teach and play with the younger girls. Using their own free time during two recess periods they developed and practiced their game to ensure it worked and was fun. They even invited their own classmates to play with them to get their opinion of what worked and what did not. When the day came for them to teach their game, the girls had asked their teacher if they could leave class early so they could set up their game in the gymnasium. Fortunately their teacher did not have a problem with this, and by the time I arrived at their school, the girls had their cones and balls all set-up and ready to go. They definitely took on a leadership role that day, and seemed proud to show off the game they invented.

A scenario played out during a game called “Hoops” which also highlighted the grade six girls taking accountability for their actions, and recognizing the position they were in as mentors and role models, a responsibility they said they enjoyed both during my introduction meeting and during our first group. “Hoops” is a competitive team game, with each team trying to cross over to the other team’s side, grabbing a hula hoop, and carrying it safely across to their own side without being tagged by a member of the other team. As the game got going, the grade six girls were observed throwing the hoops across prior to being tagged, which was against the rules. The grade two girls started to try this strategy as well; it was at this time I called time in the game. This provided an excellent opportunity to remind the grade six girls they were the role models, and that once they started cheating, the grade two girls quickly followed their example. This was a topic that was initially discussed during the first focus group. When asked to describe a role model, a couple of the girls gave the reply, “monkey see, monkey do.” The grade six
girls apologized and agreed to play fair the rest of the way, and the grade two girls emulated this behaviour for the remaining 10 minutes of the activity. This activity was played during the third week of the program, and looking back on my observation journal there was never another instance of the grade six girls acting in this manner. I observed and noted the older girls carrying out, without prompting, the responsible act of putting all their equipment away following their WWII game, and once the grade six girls started doing this, the grade two girls quickly started assisting their grade six pals. The grade two girls also stayed close to and followed the lead of the grade six girls whenever we had to wait a few minutes for the library to become available. For example, while other students from the school were in the library waiting to have their picture taken for a spirit day, the grade two girls did not go off and play on their own, talk with other students or teachers, but rather they stood with the older girls, waiting for our Play Pals session to begin.

4.4.1 Considerate of others. Another example of how the grade six girls displayed leadership characteristics was when they were given the option to choose a sport they would like to teach to their younger pal. The two sports that immediately came up were soccer and volleyball. After a quick discussion amongst themselves, the girls said soccer is played all the time during physical education and recess, and that the grade twos have not really been exposed to volleyball quite yet. Volleyball was then decided to be the sport of choice. I spent the next 15 minutes of that lesson planning session going over the basic techniques and hits of volleyball. I also used the girls as models to show how they should be hitting with their younger pal, for example how far from them to stand and where to toss the ball to best allow the younger girls an
opportunity to hit it. The older girls were noticeably attentive during this session. They had an expressed interest in playing volleyball and they seemed eager and excited to pass along their knowledge and skills to the younger girls. Going back to the initial focus group revealed that this is really how the girls viewed being a role model. One of the girls had stated that she “would be a good role model because I like sports, and by doing sports it might help other people do sports too.” A couple other students described being a role model not just in sports but in all aspects. As one girl stated, a role model is “someone who is older or more mature, gives you something to look up to.” While another girl added role models are people, “you can look up and look to for answers.” In choosing the sport of volleyball, a sport the grade six girls knew the younger girls did not play, the older girls were choosing to be role models. They were choosing to be the individuals the younger girls looked up to, the individuals the younger girls looked to for answers about the sport, and quite possibly help influence the girls to play the sport going forward.

4.4.2 Wallflowers given an opportunity to blossom. Play Pals was established as a way for older grade school girls to mentor and model physical activity and healthy living to younger girls in their school. The girls were able to grow as mentors and leaders. For some of the older girls, Play Pals enabled them the opportunity, for the first time, to be leaders in physical activity-related activities. Like most aspects of school, some students excel in certain areas, while other students excel in other areas. It became quite clear to me during the initial group meeting and first focus group which girls were outspoken and which were more shy. I had made a note during the first focus group that two of the girls were very reserved and that I would be sure not to pair them together.
When the activities began, it was the grade two students who appeared to be the most timid. During the first Play Pal session I noted “I could tell the gr. 2 were a little shy, so I encouraged the gr. 6 to be actively involved as well. This worked.” The grade six girls maintained this active engagement throughout the remainder of the program. Another example of this engagement came during the sponge knock-off game. It was here I observed and noted, “The gr. 6 girls took a few minutes to show their PP how to rest their sponge on their hand and gave them tips on how to play the game.” Additionally, during one round, “only the gr. 2 played. The gr. 6 girls said they wanted to play again,” as opposed to just sitting back watching.

The skill level involved in the games and activities were instrumental in allowing all the grade six girls feel capable of being Play Pal leaders. Games such as “Imagine This,” “Sponge Knock-off,” and the cooperative games were low skill level activities. I also made a point to reassure the grade six students that we were only teaching basic fundamental skills, and that they would not be performing skills they had not already learned in physical education class. For example, they had mentioned they learned sports such as basketball and volleyball. While we did not play basketball, the girls utilized similar skills during handball to dribble, catch, and pass the ball.

The more reserved girls from my initial observations were equally as actively engaged in the program and sessions as the more outgoing girls. The grade six teacher stated that Play Pals gave the quieter girls, who usually do not participate in athletic activities, something fun and positive to do during the recess time. I had made a note in my journal following the first group that, “two girls didn’t talk and were really soft-spoken, Skittles and Selena should not be paired together.” One of the girls, Selena,
proved to break out of this shell when it came time for her group to explain their game, World War III. She, along with her group members, took turns explaining their game to the other 15 girls (5 grade six girls and 10 grade two girls). While her turn to speak lasted roughly 30-seconds it was a moment that stood out to me because she, for the first time, was stepping out into the spotlight. I made a quick note of, “Selena even spoke, change” to remember this moment.

4.5 Rolling by Itself: Is Play Pals Sustainable Without the Researcher?

This theme will examine the capability that Play Pals has when it comes to continuing on once I have left the school. The sub-categories will further describe the qualities of Play Pals that allows it to be sustainable, for example the low cost, support of faculty and staff, and the flexibility of where the program can be held within the school.

When examining whether Play Pals would be a sustainable program for the school without me present, there were several factors identified by the teachers and principal, and observed by myself, as important. First, activities must be based around students’ interest in order to keep them engaged year to year. It is important to have an idea of what games the students are interested in playing and in what type of environment. Most of the activities were group-oriented or team-based sports. The grade six girls chose to play volleyball, and they had mentioned also liking soccer and the other team games we had played. Since they showed and expressed interest in team sports the researcher chose to introduce the sport of team handball. The girls were not familiar with the sport; however, it fell along the lines of similar activities they had expressed enjoyment in playing while also introducing them to a new sport. In order for this program to be sustainable I feel it is essential that the adult leader be familiar with several sports, or
willing to research new activities to keep the games fresh and the participants actively engaged. In the small town setting this program took place in, the recreational opportunities are limited, so introducing as many new activities as possible is welcomed and needed.

Consistency in programming was also deemed an important factor by the school principal, the researcher, and the teachers in a program’s sustainability. There was consistency with regards to the days of the week each session fell on, with every Monday being a lesson planning day with the grade six girls, followed by Tuesday and Thursday as Play Pal activities with both the grade six and two girls. Due to my previous job commitment, two of the eight weeks had an afternoon time slot rather than the regular morning time slot. Even though these times were established and sent to the teachers prior to the start of the program, there was still confusion during these two weeks, with some of the girls showing up to the main office in the morning asking where Play Pals was being held. The main office was given the schedule as well following this first occurrence.

Both teachers stated that “rewards or benefits” for students would help in the sustainability of such a program. Having rewards for students may help in securing a consistent attendance base, an area that was at times difficult. All participants were told prior to the start of the program that they would be receiving thank you gifts upon the completion of the program, and some of the girls did ask near the end of the program if they would still be receiving these gifts.

One of the teachers spoke differently of rewards by stating a program is sustainable if it is rewarding to the individual internally. The grade two teacher stated
that a program, like Play Pals, can be sustainable if it is, “valuable and rewarding for both partners” (personal communication, May 12, 2012). She did see examples of this during the course of the eight program, stating, “the older students model and learn important skills for how to act around younger students, and the younger students observe positive role models in their lives.” (personal communication, May 12, 2012). The grade six girls who were present at the final focus group said they enjoyed Play Pals for the reason of the internal reward the grade two teacher spoke of; they got to learn new skills and then were able to teach them to their younger pal. The internal reward these grade six girls felt could be a reason why their attendance was so consistent throughout the program, and while some of their classmates’ attendance was inconsistent. Even during the course of the program, and the final Play Pal session, the older girls did not ask about the final “thank you” gift. This was a big topic at the introduction meeting, but it seemed to lose its importance once the program was underway. Not every student is going to have the same motivation to participate as others, while there are those more motivated by helping other students, it is important to have material gifts available for those more externally driven.

4.5.1 Out of ‘site’ not out of mind. Another area of focus was whether this program would be successful under the guidance of someone affiliated with the school, rather than myself. The school principal said, “Having a coordinator who is in charge to help organize the students is a big contributor. Someone who is willing to take time to plan activities that are fun” (personal communication, May 10, 2012). Posing the question to the teachers of whether they felt capable and willing to facilitate a program like Play Pals, which involves both physical activity and health literacy activities, they
answered yes. I did not clarify whether this involved compensation or exact details on
the amount of time it may require. I only asked whether they felt knowledgeable and
comfortable leading this program, and whether they would consider doing so.

While I was present for all Play Pal sessions, I felt comfortable giving the grade
six girls space to work with their younger pal. While I would offer suggestions and
guidance, I did not feel they were incapable of successfully leading their pal through a
session. The older girls did a tremendous job creating a welcome atmosphere for the
grade two students, who at first were a timid group when the program initially began.
The teachers acknowledged that the students became much more comfortable with each
other as the program progressed. For example, when asked in the questionnaire how Play
Pals impacted her students, the grade two teacher replied, “They really enjoyed it and are
more comfortable and confident with the grade 6 girls” (personal communication, May
12, 2012). This was also noticeable to one of the grade six girls who said about one of
her pals, “As it went on she got a lot better, and I think she got more used to us, so it was
way more fun than that first time.” The older girls created this atmosphere by coming in
every session with a positive attitude and a genuine caring for the well-being of the grade
two girls. I do not feel this would have been any different had I been present or not. An
adult supervisor would of course need to be present for safety considerations, and to help
with scheduling of activities and facilities. Again however, I along with the grade six
girls do feel they are capable of keeping their own schedule, without having to rely on a
teacher to tell them when and where to be. When asked if they were given a printed
schedule if they felt they could follow it on their own, the girls all agreed that yes they
could do that. This showed that the participants would not need to rely on myself to
come to the school and pick the girls up from their classroom. Also, if a teacher were to be in charge of the program, they could count on the grade six girls to be in the appropriate location and the appropriate time. The more responsibilities the older girls can be given, the less reliance there is on an adult facilitator to do tedious tasks, and focus more on the execution of the activities.

4.5.2 School buys-in to low cost program. Having the school open to the implementation of this project was essential to its successful completion. The willingness of the principal to bring in this program originally is positive because it showed 1) openness to new programming, 2) flexibility in accommodating a new program and 3) awareness of a need for a program like Play Pals. To assist in sustaining this program in subsequent years, the researcher is providing the school with schedules and activities, both electronically and hard copies.

Play Pals also hit upon five additional areas that Budd and Volpe (2006) identify for program success and continuation. They are: low cost, on campus, commitment and buy-in from school principal, small scale (only 2 grades, and girls only), and ability to identify a way my program contributed to existing education plans and priorities of the school: physical activity and literacy.

4.5.3 Sure, we can easily use the hallway, or gymnasium, or playground. Play Pals also proved to be very flexible in terms of what space we were able to use for each session. In Play Pal sessions we used hallways, corridors, the library, gymnasium, and the playground. This flexibility at times had to occur at the last minute to accommodate special events such as the book fair or students testing in the library. The gymnasium was available for 3 weeks, while intramurals precluded us from using the space the
remaining weeks. The playground was originally going to be the site for the Circle Pass game, but when we got out there the snow was still fairly high in the grassy field making manoeuvring quite difficult for the girls. We walked just beyond the designated playground area to the school parking lot that had been cleared of snow.

Play Pals was also flexible in the time allotment for the program. When this project was originally proposed and approved by the school principal and teachers the sessions were scheduled to last for 30 minutes, overlapping the 15 minutes they had scheduled for recess with the first 15 minutes of their next scheduled class. This would have meant the grade six girls would spend a total of 90 minutes per week involved in the program. Following the first focus group, it was brought to my attention by the principal that one of the grade six teachers did not feel comfortable having the girls miss 15 minutes of the class three times per week, especially with report card evaluations approaching. The principal asked if it would be possible to cut the Play Pal sessions from 30 minutes to 20 minutes to accommodate the concern of the teacher. He also suggested it would be possible to extend it back to 25 minutes once report cards were submitted, which we did on two occasions. Had we not been flexible and accommodating at the beginning, we may not have been granted these two allowances.

The flexibility we had in adjusting to locations and the flexibility we had in carrying out activities given time constraints, proved to be an important element in successfully carrying out this program from week to week. It also shows that the program has the potential to continue at this particular school. They have the necessary facilities, equipment, and their school day schedule permits just enough time for activities to take place. Even though one teacher voiced her concern with the amount of time her
students were gone, she still allowed for their full participation. The other teachers were even more accommodating, as I noted a teacher saying upon our first meeting, “just tell us a time and place and we’ll send them.” The three teachers I spoke to at this time also agreed that having the program during recess was a great time for them.

4.6 Summary of Findings

The Play Pals program had a main objective to be an in-school intervention program to promote physical activity and healthy literacy to its early adolescent participants. As a research project, I examined how it accomplished these objectives and how Play Pals could be repeated in subsequent school years, without my facilitation.

In summary, through my findings, I learned that, for this group of girls, recess was the most ideal time for them to participate. They normally viewed recess as a time to sit and chat with friends, not a time to be active. They found it easier to be active during physical education, and the structure of Play Pals seemed to be more inviting, than the non-structure play recess normally presented. The girls also stated that had the program been held during their lunch hour, or after school, it would have been more difficult to attend.

Play Pals also allowed the quiet, non-sporty girls to participate in activities they otherwise would not have attended. The mixture of role modeling, reading, peer socialization, and sport appears to be an inviting atmosphere that most girls seem to enjoy and shine. This atmosphere also provided an opportunity for the girls to learn new activities, and share these activities with their classmates and friends outside the Play Pals program.
It was also in the Play Pals setting that many of the girls were able to show leadership and mentoring qualities to their younger pal. Through health literacy lessons such as teamwork and cooperation, and activity games that allowed them to teach and instruct, the girls were frequently put in leadership roles, in which they excelled on a weekly basis.

Lastly, an in-school program may be successful in reaching its participants, but it will not last unless it has the full support of the school. In this instance, Play Pals was fully backed by the principal and teachers, and given the space, low cost, low instruction level, this program has the qualities to be repeated in years to follow.
5. Discussion

5.1 Contributions and Significance

Research has been conducted and documented on the positive effects near-peer mentoring has on both the tutor and the tutee in academic areas, little to no research has been found which looks at near-peer mentoring for healthy active living. This study took the model of the successful literacy program, reading buddies, which aims to promote good reading practices, and developed a program that ties together health literacy and physical activity to promote healthy active living for its young female participants.

Tiessen and Dust (2006) say that a reading buddies program helps build a positive attitude toward literacy, and allows the students to see themselves as readers and writers. Play Pals created a similar atmosphere where the older girls were eager to come to each session, and saw themselves as teachers and coaches to the younger girls. Having had previous experience with the reading buddies program, the girls said they enjoyed this more because it kept everyone’s focus, there was less complaining, and it was fun to be up moving around. I do not believe, based on the comments of the older girls, that this program would have been as well received had it just been a health literacy program. Therefore, where much of the focus in the past has just been on literacy tutoring programs such as reading buddies, Play Pals is one of the few programs to not just utilize literacy in a mentoring aspect, but to use near-peer mentoring to promote health literacy and physical activity.

As it turned out, the structured nature of the Play Pals activities allowed the older girls to view their recess time differently, going from a period of monotonous poorly
organized activities, to a period of fun and varied activities and games. In terms of promoting physical activity, I feel statements like these support the claim that Play Pals does promote physical activity. This showed the girls were aware of the opportunities they had to be active during this time, enjoyed the activities they were taking part in, and wanted to be able to stay and continue with the activities. Play Pals both supported and encouraged the opportunity to be physically active, the girls recognized this, and wanted to take advantage of this opportunity.

As mentioned in the findings section, the older girls had positive attitudes towards their PE class, and valued the opportunity to be physically active during this time. The girls stated they liked the structured activities, the opportunity to play with different classmates, and the opportunity to learn new games and sports. These sentiments are nearly identical to those expressed by similar-aged girls during my pilot study of this program (Miller & LeDrew, 2010) and a photovoice project I conducted a year later (Miller & Genoe, 2011). These findings contrast to other research studies, who claim a large number of students view physical education as boring and not relevant, or a break from their regular work (Saffici, 1999; Silverman & Subramaniam, 1999; Subramaniam & Silverman, 2007).

5.2 Learning Outcomes

Speaking specifically about the research topic, I was able to learn and come to understand a great deal more about in-school physical activity programs. First, I know that sessions for physical activity promotion need to be scheduled for at least 25-30 minutes. With time for instruction and other extraneous variables, this could still allow for 15-20 minutes of quality physical activity.
The grade differential of the mentoring pairings seemed to work, as there was never an instance where the grade six girls expressed an activity as boring or beneath them. Their excitement and enjoyment during the activities was always clearly visible. The fact that the grade six girls played some of the games during their free recess periods supports this assertion.

According to Morrison, Everton, Rudduck, Cannie, and Strommen (2000), the girls already displayed behaviours associated with a support framework of mentoring. They already perform such duties as recess aides (supervise the outside door the younger students use for entering and exiting the playground area), crossing guards, notifying each homeroom when it was their turn to report to the library, and they were reading buddies when the program was offered. They also perform duties that Morrison et al. (2000) would categorize as an “informal support system” (p. 187).

The use of health literacy with this program was an important draw for some of the grade six girls. The girls expressed early on that they really liked participating in the reading buddies program, but admitted it could be boring at times to just sit and read. Learning that they could still have the “teaching” responsibility of reading buddies combined with a physically active element was very attractive to them.

From my perspective, the sustainability of an in-school program has as much to do with the logistics, objectives, and outcomes of a program, as it does with the buy-in of the faculty and staff. A program may be heralded as the next best thing in education, but if teachers, staff, and administrators are unwilling to adjust schedules, make students available, or put in time themselves a program cannot last. My project could have easily
been turned down by the principal, but I easily gained his approval, along with two of the three grade six and both of the grade two teachers.

Through the completion of this project, I learned several things that not only relate to this specific research topic but to conducting research in general. First I feel it was important to keep an open-mind in terms of selecting a school site. My initial plan was to receive permission from a school near the city from which I was living. However, as I learned from my pilot study, some school divisions require a lot of time and information before any request is reviewed, let alone granted. I was fortunate enough to have a teaching position through the University in the town of Troy, and I sent a brief email outlining my project and asking if their school would allow me to conduct my program. The school administrator was extremely receptive of my project, and my project was quickly approved to commence at their school site.

From my previous research projects, I have learned the value in staying in good graces with the teachers and administration involved with the project. As was the case with this project, the one grade six teacher could have easily pulled her students from the program, but through the principal, we were able to negotiate a length of time that was acceptable for all. I feel this is an important element to why Play Pals can be a sustainable program in this school. The principal, faculty, and staff all seemed receptive and willing to make this program work for the girls. Ways to keep such a relationship strong is through constant communication, either through emails or in person, being on time and organized for all sessions, maintaining proper control of the students when under my supervision, and lastly simply being polite to all faculty and staff I feel can go a long way in developing a strong relationship with your project site.
Not everything is guaranteed to run exactly as planned, and for this reason I have learned the value in being flexible and adaptable to change, especially with working in schools there are bound to be events, holidays, early dismissals, or mandatory testing days that interfere with one’s proposed program schedule. Garringer (2008) identifies flexibility as an important element in program sustainability. I have learned a few ways to accommodate such dealings, such as prioritizing my data collection methods beforehand. I thought going into my first focus group that my guiding questions for the girls would provide richer data than those from the physical activity survey. In terms of answering my research questions, the ability to fully answer if Play Pals was able to promote physical activity was most likely affected. Without a baseline of how much physical activity each girl was engaged in at the start of the program, I was unable to determine if there was an increase of physical activity throughout the program. The focus group questions did reveal the girls’ perception that they were not very active during recess. When I saw there would be an issue with time, I chose rather to continue with all my questions, rather than skipping ahead to the survey. In another example, one day the girls and I arrived to find the school’s book fair was being held in the library where we had been conducting our Play Pal sessions. Knowing it would take additional time to get the girls all dressed in the winter gear to go outside, we instead did our activities in the large hallway near the library entrance.

Through the course of this project, I firmly believe that young adolescent females would benefit far greater from a structured recess program than the standard free-play that takes place in most schools throughout the country. The grade six participants saw the value in such structure in their own physical education classes. Skill development,
competition, and social interaction amongst all classmates were a focus and not something the girls would experience during a normal recess period. Plays Pals had similar structure to a physical education course, and I believe this was a positive aspect for the girls. There were plans for each day, and the girls came into each session like they would a regular class, sit down and await my introduction. The girls were also very good at staying on task, as I never observed any of the girls participating in anything other than the games or activities we had planned for that day. According to Budd and Volpe (2006) successful in-school intervention programs seem to target older children 12-16, as they are better suited for behaviour change and from a maturity and cognitive standpoint, do not need as much direct supervision. The behaviour of the grade six girls supports this claim.

5.3 Limitations

Time restraints proved to be a large obstacle in this study, that at times were difficult to overcome, and is considered a limitation to the overall work. Only having a certain amount of time to access the students resulted in data collection methods being altered and possibly compromised. The first focus group with the grade six girls had 16 participants. In an ideal setting this number would have been decreased by more than half. Unfortunately, this was the only day and time that fit teachers’ schedules that beginning week, so all participants were present for one focus group. I was able to ask the girls all of my pre-determined questions, but only half of the girls were contributing with regular responses. With better preparation, I ideally would have split the girls into two or three focus groups to help solicit increased participation from the more quiet participants. By the time the interview portion of the focus group was completed there
was no time to administer the self-efficacy survey or physical activity questionnaire. While the data from these instruments were not going to be used in data analysis, it was a tool I was hoping to help elicit conversation about their physical activity perceptions and levels. However, I do feel I got a good sense of these through my interaction with the girls throughout the weeks we spent together.

Another change to the Play Pals that had to occur due to time was the selection and planning of each lesson plan. Originally, I was going to allow the grade six girls to choose a physical activity and health literacy lesson each week, then allow them the opportunity to teach it directly to their Play Pal. However, one of the grade six teachers voiced concerns about the girls missing the first fifteen minutes of their class following the recess break. This was the time that was originally agreed upon by the teachers and principal, but the teacher felt with report card evaluations approaching it was important for the students to be in their class at the start. The principal was able to negotiate with this teacher to allow the girls to arrive five minutes late, our times were adjusted from 10:25-10:55 to 10:25-10:45 AM, with the understanding that once report cards were finalized, we would look into adding an additional five minutes when possible. Because of the shortened time frame, I found it to be most to efficient if I chose each lesson beforehand and spent the lesson planning session going over that week’s lessons with the grade six girls. At the start of each Play Pal session I gave the general directions in front of all the groups, and the grade six girls were then able to break into pairs and begin the activity. I felt I was able to give clearer instructions which would enable the girls to start the activities much sooner than if each grade six girl was trying to explain the activity on their own.
Due to the busy schedules of the teachers, face-to-face interviews were not possible. Each teacher involved with this program was given a list of questions to answer upon the completion of the program. This list was forwarded to them from the principal and emailed back to me. Of the four teachers involved, one teacher from each grade level returned the questionnaire. The amount and quality of data collected using this method versus an individual interview is unknown. It is my belief that I would have garnered much of the same information from the teachers, with only the quantity of data being more extensive. The teachers were all well-spoken and this came across too in their questionnaires, so I feel the teachers were able to express their beliefs just as well in written form as they would have during an interview.

Attendance and commitment was not consistent, and this would be a main concern of how well the program could be going forward. By the third week, it was usually the same six to eight grade six and grade two girls attending. Then it was hit or miss on whether the other girls would show or not. One day we had seven grade six girls attend for lesson planning session for volleyball, and then 11 grade six girls and seven grade two girls present for the actual volleyball session the next day. The next week we had nine grade six girls and eight grade two girls attend for yoga. The attendance was never the same from session to session, but I could normally count on consistent group of six to eight girls to be present. The grade six girls that were present always made sure to include all the grade two girls into their group without any urging from the researcher. This was different from the pilot study, when the researcher had to personally place girls into groups. While the grade six girls took it upon themselves to include all the grade two participants, this did take up a couple valuable minutes during the sessions. Had the
attendance been consistent throughout, the groupings would have been clear and set, and extra time would not have been needed to ensure Play Pal placement. The inconsistency in attendance amongst the grade six girls did not allow for the regular partnerships to occur between the grade six and grade two girls. This did not seem to take away from the execution of the activities, nor did it diminish the enjoyment the girls had each session. I was unable to establish or get a sense of the connection that could be made within a single Play Pal pairing. Due to this I was unable to assess how Play Pals works from a one-on-one mentoring perspective.

Through the focus groups and Play Pal session observations I was able to observe the interactions that went on between the older girls and the younger girls, and how these interactions influenced each one’s behaviours throughout the duration of the program. For example when the grade six were developing their own game they easily could have made the activities complex and highly skilled, but they chose activities that were simple to explain and comprehend, and involved skills, such as tossing and rolling, that could easily be accomplished by grade two students. This observation corresponds with research already done on the positive effects cross-age peer tutoring has on the older student. According to Thorpe and Wood (2000), cross-age peer tutoring allows the tutors and tutees to expand friendships that normally may not exist, the tutor benefits from being a role model and being looked up to by another student, and feels a sense of accomplishment and competence. The friendships that developed throughout the eight weeks would likely not have occurred had the grade six and grade two girls not been brought together through Play Pals. Thorpe and Wood (2000) also mentioned that tutors are able to contemplate the purpose as well as the outcome of a task. This again was
shown in the selection of volleyball over soccer, and the grade six girls coaching the grade two’s on game strategies.

**5.3.1 Unable to determine an increase in physical activity levels.** Play Pals was not able to determine if there was an increase in the physical activity levels of the primary participants, mainly that there was the perceived promotion of physical activity. Reflecting on several circumstances surrounding the study may help to explain why this was not achieved. First, due to time constraints of the first focus group, the primary participants were unable to fill out a physical activity questionnaire, which had questions pertaining to one’s previous physical activity during the past week. This questionnaire may have provided a slight glimpse into the physical activity levels of the grade six girls, and given a baseline for future comparison. In hindsight, I would have made extra time to have this questionnaire filled out pre and post Play Pals. Given another opportunity, I would strongly consider a more objective technique of measurement, such as having the Play Pal participants wear an accelerometer or pedometer to gauge their activity levels prior to the program commencing, as well as after at the program completion.

The length of the Play Pal sessions were also shorter than originally planned. Because of this, most sessions only had active play times of approximately 15 minutes. While this may be higher than the five to seven minutes typically recorded in a physical education class (Whitt-Glover, Ham, & Yancey, 2011), these sessions only occurred once per week for seven weeks. Research articles of systematic reviews have found that physical activity intervention programs that have shown a positive effect have a duration of 18 weeks to 9 months (Dobbins, DeCorby, Robeson, Husson, & Tirillis, 2007).
Another explanation for the lack of increased physical activity seen in the primary participants is due to their grouping with students four grade levels below themselves. The skill-level discrepancy between these two groups was rather large, with the older girls clearly being faster and stronger, and in most cases better able to comprehend and adjust to game strategies and tactics. Because the older girls were there as mentors to the younger girls, their effort level in games was observably much lower.

5.4 Future Considerations

While Play Pals appears to be a program that can be successful in promoting health literacy and physical activity, and also sustainable in the school setting, there are issues that need to be addressed before moving forward. In this study, the school’s grade six students were the oldest, but it is imperative that there is an adult to supervise at all times. From a developmental and social standpoint, the grade six girls still need the urging and guidance of an adult on how to properly conduct themselves during a session. While the girls’ behaviour would not be classified as deviant, there were moments when I, as the facilitator, had to remind the girls to act responsibly as their behaviour is modeled by the grade two girls. The teachers who provided program feedback both responded that they felt comfortable leading such a program, and I feel having a teacher or someone associated with the school would be very important. I believe the girls would have a greater sense of accountability if they saw it as a school-based program, rather than a university student’s project.

The lack of Aboriginal student involvement is an area that will also need to be addressed to ensure that all students feel comfortable participating in such a program. As mentioned earlier, the school is predominately Aboriginal, but the majority of my
consistent participants were white. There are many questions that can be asked, and many answers left unexplained as to why the participants who were most present throughout this study were the white girls from the French-immersion classrooms at the school. While this observation goes beyond the scope of this project, it is a detail that should be addressed at some point, as there is a clear need for health intervention programs for this population.

The students in this study made it clear they preferred to have Play Pals during the school hours. While they joked it was because they missed class, in reality they were only missing their recess time. They went on to explain they are very busy after school with extracurricular and community programs, so during school was the best way to ensure they would be present. This again goes to the inconsistent attendance I experienced, and I am left to speculate how the school can fix this. A consideration would be to incorporate the program into the reading buddies program, which the principal stated was mandatory for all teachers. Since health literacy is already a component of Play Pals, it can be easily transitioned to fit the reading buddies objectives of building literacy skills among students. Again, making the program mandatory for students would increase the attendance, which would enable for consistent partnerships throughout the length of the program.

Play Pals did appear to provide an opportunity for structured physical activity. The grade six girls played the games they learned during their free recess time and the grade two teacher stated her students would emulate the exercises they learned were evidence of this. What may need further investigation is the level a program such as Play Pals has on influencing student lifestyle choices during a longer timeframe, such as an
entire school year. For example, does reading about health lifestyle choices and participating in activities that promote healthy, active living have long term effects on the choices a student makes throughout the school year?

The program was originally conceived as a one-on-one mentoring program, but due to the inconsistency in participant attendance this was not possible. During the final focus group the girls said they actually liked the idea of not having an assigned “pal” but they rather enjoyed having different “pals” throughout the weeks. One of the girls stated, “just take a group and go” followed up by another student who said, “yeah, just get everyone involved.” This seemed to be the main focus and concern of the grade six girls, that all the grade two girls were having fun and had at least one grade six “pal” to lead them.

If I were to change an aspect of the training session in the future it would be to briefly include the younger girls in an activity, lead by the adult facilitator, similar to one used in the Play Pal program. The role playing would allow the grade six girls to see how the grade two girls behave in such a setting, see ways in which to manage the group, and it would also be another opportunity for the two groups of girls to build a relationship.

There was no cost associated with the actual facilitation of the Play Pals program. The only foreseeable cost moving forward for the school would include any paper copies they may need to make, although some of the papers we used could be laminated and reused for subsequent years. For example, the yoga image and instructions could be laminated to prevent wear and tear, as could the healthy living charades cards. The school has available equipment so no additional equipment would need to be purchased.
The school has equipment set aside for both recess and physical education class, and the physical education teacher was very accommodating in allowing us to use gym mats, Nerf balls, and cones to help with various activities, especially the World War III game that the grade six girls developed which required the most equipment out of all the activities.

A final consideration to this study would be to involve the male students as well. Having all the students from a classroom involved in a program may provide a sense of camaraderie. Also, having all the students on the same schedule may lead to less confusion, and would make the facilitation of the program easier for the adult supervisor. Though the focus of my research is on pre-adolescent females’ decline in physical activity, young males are prone to this decline as well. Though their rate of decline is not as high as females, the inactivity rates of youth, both boys and girls, cannot be ignored.

5.5 Final Thoughts

It is my belief that a program like Play Pals has the potential to positively impact the physical activity and health literacy levels of its participants. I feel it has its greatest potential with the female the students, who seem to have fewer opportunities for physical activity throughout the day. These fewer opportunities may be self-inflicted, such as choosing to sit around at recess rather than playing, or they could be external as well. As the grade six girls pointed out, the boys in their class often do not let them join in recess activities such as hockey. Davison, et al. (2001) mentioned two growing needs of young adolescent females, 1) the need for a sense of independence and 2) the need for peer visibility and conformity. Play Pals, through its group cross-age tutoring can help the participants meet these needs. First, the girls are given the freedom to lead their younger
through activities, as well as develop activities on their own. Unlike other parts of their
day, the older girls are able to be the leaders. Secondly, this is a program that still allows
the grade six girls to be around their friends and classmates in a social setting, while still
promoting a healthy, active lifestyle. Play Pals provides a structured environment that
promotes participation for all participants, and provides the older girls with a sense of
independence and social interaction they need at this time in their lives.

Play Pals not only provides an environment that focuses on the physical abilities
of the students, but provides them with reading materials and activities to raise their
awareness on topics such as stress management, teamwork, and leading a healthy life.
Although the girls in this project only had one day a week of health literacy activities, it
is an area, when combined with their normal in-school reading, can go a long way in
improving their health literacy. According to the Canadian Council for Learning (2008),
daily reading is the strongest factor in predicting higher levels of health literacy. The
more reading the girls are exposed to, the greater their chances are of being health literate
as adults, and ultimately better capable of making insightful and well-informed decisions
that affect their health.
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Appendix A: Play Pals Schedule

December 9, 2011: Met with the school principal
January 31, 2012: Introduction meeting with all grade six and grade two girls
February 28: Met with the teachers whose students were going to be in the program
March 1: Met with the grade six girls for a “ice breaker” session
March 2: Focus Group with grade six girls only
March 5: Lesson planning takes place with grade six girls only
March 6: Play Pal introductions with grade six and grade two girls, Physical Activity (PA) “Replay”
March 8: Health Literacy (HL) activity, reading from “Children on the Move”
March 12: Lesson planning
March 13: PA “Sponge Knock-off”
March 15: HL “Active Living Charades”
March 26: Lesson planning
March 27: PA “Circle Tag”
March 29: HL “Teamwork, ‘The Big Match’”
April 2: Lesson planning
April 3: PA “Hoops”
April 5: HL “Leadership”
April 16: Lesson planning
April 17: PA “Mat Games”
April 19: HL “Active Living Mystery Words”
April 23: PA “Volleyball”
April 26: HL “The Life-Wasting Potion”
April 30: Lesson planning
May 1: PA “Team Handball”
May 3: HL “Stress Management/Yoga”
May 4: Final focus group, grade six girls only
Appendix B: Parent Letter

January 3, 2012

Dear Parent/Guardian:

As a researcher at the University of Regina, I am developing a program, Play Pals, to promote mentoring and role modeling of healthy, active lifestyles in elementary school girls. As the facilitator of this program I will ask grade 6 girls to reflect on the term ‘healthy, active lifestyles’, to reflect on their responsibility to mentor or role model to younger girls. With my guidance, the grade 6 girls will also create and teach active games and health literacy activities to younger grade 2 girls to encourage them to partake in physical activity. The grade 6 and grade 2 girls will meet twice weekly for 8 weeks, similar to a Reading Buddies program.

These sessions will be approximately 45 minutes in length, and will occur during the school, at a time selected by administration as not to interfere with academic school work.

Participation in this project is entirely voluntary. The identity of your child will be kept confidential at all times. Your child is free to refuse to participate or to withdraw from the study at any time without any reason or explanation for doing so. The name of your child will not be used in the analysis and research report. The children will select their own fictitious name to protect the identity of each child involved in the study.

The school principal and staff have approved this study. General results will be made available to teachers, school administrators, and others who are interested. It is my hope that this program can be continued in subsequent school years.

I will be meeting with all Grade 2 and 6 girls during the week of January 30th. At this time the girls will be given a consent form to take home. If you would like your child to participate, this form needs to be signed and returned during that school week, or prior to the program beginning.

Thank you very much for your cooperation. If you would like more information, please feel free to contact Stephanie Miller at mille23s@uregina.ca. This study will receive approval by the University of Regina Research Ethics Board and if you have any questions you can contact them at 585-4775 or research.ethics@uregina.ca.

Sincerely,
Stephanie R. Miller
University of Regina
Graduate Student
Kinesiology and Health Studies
Appendix C: Consent Forms

**Project Title:** Play Pals Case Study: Increasing Physical Activity Through Near-peer Role Modeling and Mentoring

**Researcher(s):** Stephanie R. Miller, Graduate Student, Kinesiology and Health Studies, 551-9330, mille23s@uregina.ca

**Supervisors:** Dr. June LeDrew, Kinesiology and Health Studies, 585-4842
Dr. Larena Hoeber, Kinesiology and Health Studies, 585-4363

**Purpose(s) and Objective(s) of the Research:**
- The purpose of this study is determine if Play pals can be an effective program implemented by schools to increase the physical activity level and beliefs of early adolescent girls.
- This research will help in strategizing an effort to develop a program that allows middle school girls to mentor and role model healthy, active lifestyles for girls in the primary grades, while increasing their own motivation and participation in physical activity.

**Procedures:**
- As a participant you will be asked to take part in Play Pal activities twice per week. The first weekly gathering will be a focus group to lesson plan, discuss active living, and your thoughts on how your role as a mentor is going. The second weekly gathering you will meet with your younger “pal” and facilitate the games and activities that were previously planned.
- You will have the opportunity to meet with your “pal” for 8 weeks.
- The first and last gathering you will be asked to fill out a physical activity and self-efficacy questionnaires. This gathering will also be audio taped.
- All gatherings will take place at school during your lunch/recess break. You will be given your full lunchtime to eat your meal.
- Please feel free to ask any questions regarding the procedures and goals of the study or your role.

**Potential Risks:**
- There are no known or anticipated risks to you by participating in this research

**Benefits:**
- After this study, I will supply the school, along with the Prairie Valley School Division headquarters, with a detailed description of the activities the participants took part in, along with tips on how to facilitate a Play Pals program so they may continue to with the program the following school years

**Compensation:**
- All participants will receive a small thank you gifts relating to active living, such as a jump rope, Frisbee, Nerf balls, and pedometers.
Confidentiality: (see consent guidelines section 9)

- The researcher will undertake to safeguard the confidentiality of the discussion, but cannot guarantee that other members of the group will do so. Please respect the confidentiality of the other members of the group by not disclosing the contents of this discussion outside the group, and be aware that others may not respect your confidentiality.
- No one can identify who contributed a given piece of information, as names will be altered.
- This consent form will be stored separately from the data collected. The master list will also be destroyed when data collection is complete and it is no longer required.

Storage of Data:
- Data will be stored with myself, Stephanie R. Miller,
- [When the data no longer required, the data will be destroyed]

Right to Withdraw:
- Your participation is voluntary and you can answer only those questions that you are comfortable with. You may withdraw from the research project for any reason, at any time without explanation or penalty of any sort.
- Should you wish to withdraw, any data you provided will be omitted (not used) from analysis. Your pseudonym will also not be used in the final write-up.
- Your right to withdraw data from the study will apply until the final Play Pals session. After this it is possible that some form of research dissemination will have already occurred and it may not be possible to withdraw your data.

Follow up:
- To obtain results from the study, please contact your school administrator

Questions or Concerns:
- Contact the researcher(s) using the information at the top of page 1;
- This project has been approved on ethical grounds by the UofR Research Ethics Board. Any questions regarding your rights as a participant may be addressed to the committee at [585-4775 or research.ethics@uregina.ca]. Out of town participants may call collect.

Consent: Your signature below indicates that you have read and understand the description provided; I have had an opportunity to ask questions and my/our questions have been answered. I consent to participate in the research project. A copy of this Consent Form has been given to me for my records.

Name of Participant ____________________________ Signature ____________________________ Date ________________

Name of Parent ____________________________ Signature ____________________________ Date ________________

A copy of this consent will be left with you, and a copy will be taken by the researcher.
November 8, 2011

Pre-Cam Community School
600 Boardman St.
La Ronge, SK S0J 1L0

To Mr. Ryan Kuppenbender,

Hello, my name is Stephanie Miller, and I am a third-year Master’s student at the University of Regina. For my thesis I am attempting to develop a program similar in nature to “Reading Buddies,” which I am calling “Play Pals.” I have piloted this program on a smaller scale at a local elementary school in Regina. My findings were positive, so I am aiming to carry out the program as my main thesis project. I would like to recruit volunteer grade six female students, teach them various developmentally appropriate games and literacy activities and have the children share or model them for primary grade 2 or 3 children during the lunch/recess period.

The main focus of this study is to see if Play Pals can be an effective program for schools to implement to increase the physical activity levels of pre-adolescent girls. I will compare and contrast the girls’ feelings regarding their participation and level of influence they feel they have in a reading buddies program and that of a physical activity buddies program. This research will help in strategizing an effort to develop a program that allows middle school girls to mentor or role model healthy, active lifestyles for girls in the primary grades, while increasing their own motivation and participation in physical activity.

For participating in this project, I will be providing the school and each participant with copies of the book, “Children on the Move: An Active Living Alphabet.” This alphabet book offers 26 colourful illustrations that depict examples of active living. It also includes interactive “I can spot” sentences for object identification.

Each grade six student who volunteers to be a “Play Pal” will also be provided with a consent form to be reviewed and signed by the student and their legal guardian. I will be seeking and obtaining University ethical approval prior to conducting the project. My hope is to start the program in late January and complete it in early May.

Would you please provide me permission to conduct this project within your school? If you have any questions please contact me at 551-9330 or mille23s@uregina.ca.

Thank you very much for taking the time to consider this request.

Sincerely,
Stephanie R. Miller
University of Regina, Kinesiology and Health Studies
Master’s candidate
# Appendix E: Yoga Pose Sheet

<table>
<thead>
<tr>
<th>Pose</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Hands together in prayer position in front of the heart.</td>
</tr>
<tr>
<td>2</td>
<td>Lock the thumbs together, stretch the arms up next to the ears and stretch straight up toward the sky.</td>
</tr>
<tr>
<td>3</td>
<td>Bend forward from the hips and reach toward the feet. Try to keep the knees straight.</td>
</tr>
<tr>
<td>4</td>
<td>Step back with the left leg, bring the knee down to the floor. Hands stay next to the front foot. Look forward. Watch that you do not lean over to one side.</td>
</tr>
<tr>
<td>5</td>
<td>Step back with the right leg, raise the seat up into the air and make an inverted V shape. Look back at the feet. Keep the arms and legs strong.</td>
</tr>
<tr>
<td>6</td>
<td>Bring the knees down to the floor, then the chest down between the hands and bring the chin to the floor. The seat is slightly raised up.</td>
</tr>
<tr>
<td>7</td>
<td>Slide the body forward, lower the seat and raise the head and chest. Do not press any weight on the hands.</td>
</tr>
<tr>
<td>8</td>
<td>Lift the body back up in the inverted V shape. Watch that the hands and feet are in the correct position.</td>
</tr>
<tr>
<td>9</td>
<td>Bring the left foot up in between the hands, lower the right knee to the floor and look forward.</td>
</tr>
<tr>
<td>10</td>
<td>Bring the right foot up to meet the left. Straighten the knees and hang relaxed like a rag doll.</td>
</tr>
<tr>
<td>11</td>
<td>Lock the thumbs together and slowly raise up. Stretch the arms up next to the ears and stretch up toward the sky.</td>
</tr>
<tr>
<td>12</td>
<td>Bring the palms together in front of the heart.</td>
</tr>
</tbody>
</table>
Appendix F: Team Handball

**TEAM HANDBALL RULES**

**Simplified Rules of the Game**

1. **Object of the Game**
   Handball combines the elements of soccer and basketball, as players move the ball down the field that is larger than a basketball court and try to score by throwing the ball past a goalkeeper into the net. A successful scoring attempt results in the award of a single point.

2. **Field of Play**
   Playground soccer field

3. **The Goal**
   Hockey goal was used

4. **The Ball**
   A handball is made of leather and is about the size of a large cantaloupe. It varies in size and weight according to the group playing. The ball for men weighs 15-17 oz. and is 23-24" in circumference. Women and juniors use a smaller ball weighing 12-14 oz. and 21-22" in circumference. Youth use smaller varieties of balls for mini-handball.

5. **Playing the ball**
   **Players are allowed to:**
   - Dribble the ball for an unlimited amount of time
   - Run with the ball for up to three steps before and after dribbles
   - Hold the ball without moving for three seconds.

   **Players are not allowed to:**
   - Endanger an opponent with the ball
   - Pull, hit, or punch the ball out of the hands of an opponent
   - Contact the ball below the knees
Appendix G: Circle Tag

1. All the players form a circle with one or two players designated as “it”
2. “Its” can stand either on the outside or inside of the circle.
3. Players forming the circle begin to pass a ball to one another within the circle
4. Players may not pass the ball to a player positioned right next to them.
5. “Its” attempt to deflect, steal a pass, or tag a player with the ball before they are able to make a pass.
6. If this occurs, the tagged player, or player who made the throw will become the new “it”
Appendix H: Guiding Questions

Guiding Questions for Play Pals Focus Group

1. In your own words, how would describe someone who is a role model? What type of characteristics or qualities do they have?
2. Is there someone in your life you see as a role model to you? How have they influenced or impacted your life?
3. In what ways do you see yourself as being a role model to younger children? How does it make you feel when someone says you are a role model to younger students or children? Do you feel more pressure or responsibility to act the right way when you are around younger students?
4. What types of activities, subjects, etc. would you be a good role model for? Why these activities?
5. Do you see yourself as being a role model in the Reading Buddies program? Why?
6. What do you like about being a reading buddy?
7. Is there anything you’d want to change about being a reading buddy?
8. In what ways do you think you help your younger reading buddy?
9. What do you like about your P.E. class and recess period? What don’t you like? Do you enjoy one over the other? Why?
10. What are some of the good reasons and healthy benefits of why you attend PE and recess during school?
11. Do you feel you are active enough to receive these benefits? How about the younger students, do you think they realize the healthy benefits to playing and being physically active?
12. How confident are you when it comes to exercising and playing games? Do you enjoy doing these activities at school or outside of school?
13. What do you feel is the reason for this confidence or lack of confidence when it comes to school related physical activity?
Appendix I: The Big Match

The Big Match

Educational Value

Humility, generosity and teamwork

Moral of the story

When doing things together the important thing is to make sure things turn out for the best, rather than worry about how much each individual has contributed

Story

Once, a group of boys decided to play a proper soccer game. Each one of them would bring something used in professional matches. So one would bring the ball, another the whistle, another the goalposts, others the goalkeeper gloves, the corner flags, etc... But before the game started, while they were picking the teams, there was a slight argument. They decided that the boy who had brought the most important object would get to pick the teams. Well, now they couldn't decide which had been the most important object, so they thought it would be best to just start playing, using all the objects, and gradually get rid of what people had brought, to see which things were truly indispensable.

The first thing they got rid of was the whistle, because the referee could just shout instead. Then they tossed the goalkeeper gloves: they managed to save the ball just as well without them. Neither did they really notice when they stopped using the corner flags, nor when they replaced the goalposts with a couple of bins. And so they continued, until finally they replaced the football with an old tin, and managed to keep playing... While they were playing with the tin, a man and his son passed by. Seeing the boys playing like that, the man said to his son: "Look, son. Learn from those kids over there. Without even a ball they're managing to play football, even though they're never going to be able to improve playing that way."

The boys heard him say this, and realised that because of their excessive pride and egotism, what could have been a great match had turned into a shameful display, which they were hardly enjoying at all. That moment, they decided to put their selfish opinions to one side, and they agreed to start playing the match again, from the start, and with all the proper equipment.

And it really was a great game. No one thought about who was playing better or worse. Rather, they just concentrated on having fun and improving their game.


Author: Pedro Pablo Sacristán
Appendix J: Imagine This: Sask Sport Lesson

**B, N**

**Equipment:** None

**Skills:**
- Locomotion: Running, jumping, hopping, skipping
- Movement: Body awareness, balance, effort awareness, flexibility, springs, landings, rotations
- Cognitive: Imagination, creativity, problem solving
- Social: Listening, co-operation, independence

**Organization:** Children in own personal space

**Activity:** Choose similes for children to act that would be in the range of their experiences.

Try not to demonstrate unless there are no responses from the children.

Pretend you are…: Show me how…; How would you…; Let me see you… etc.

- Are a tightrope walker
- Skip like a giant with big boots
- Pop like a bursting bubble
- Skip like a light fairy
- Pounce like a cat catching a bird
- Float like a balloon – POP!
- Wiggle like a worm on the ground
- Fly like Superman
- Move your legs like a pair of scissors
- Shake like a just washed puppy
- Hop like a hammer just dropped on toe
- Melt like an ice cube in the sun
- Jump like cheerleaders
- Walking on a railway track
- Make a bridge with 2 hands/2 feet on floor
- Make a bridge with 2 hands/1 foot on floor
- Make the bridge high/low/narrow/wide
- Make a bridge with 1 hand/2 feet on floor
- Kick like a wild pony
- A figure skater gliding on 1 foot
- Fall while skating
- Tackled from behind in football
Appendix K: Questionnaire to Secondary Participants

1. How would you categorize the physical activity levels of the girls in your classroom? Very active, somewhat active, not very active? Why?

2. How often do your students attend P.E. class per week? For how long?

3. How long do students have recess per day?

4. Do you see a need for a school-based physical activity/health literacy program?

5. If observable, how do (physical activity)PA levels compare between PE and recess for the girls? Are they more active in one rather than the other?

6. How would you say PA impacts student behavior?

7. When and why was Reading Buddies removed from your school?

8. How was your school’s Reading Buddies program facilitated?

9. What kind of impact did Reading Buddies have on the students?

10. Is health class part of the school curriculum for all grade levels?

11. What would be challenges or reasons you see that may keep some girls from being PA?

12. What characteristics make a program like Reading Buddies or Play Pals, sustainable? What do you consider important when evaluating a program?

13. How do you feel Play Pals impacted the girls?

14. Can you give me an example of how Play Pals influenced a girl’s behavior?
Appendix L: Non-disclosure Agreement

This form is intended to further ensure confidentiality of data obtained during the course of the study entitled ‘Play Pals Case Study: Increasing Physical Activity Through Near-peer Role Modeling and Mentoring’. All parties involved in this research, including all focus group participants, will be asked to read the following statement and sign their names indicating that they agree to comply.

I hereby affirm that I will not communicate or in any manner disclose publicly information discussed during the course of this focus group interview. I agree not to talk about material relating to this study or interview with anyone other than the researcher and those who participated in the focus group with me.

Participant’s name: ___________________________________________ (please print)

Participant’s signature: _______________________________________

Date: _______________________________________________________

Principle researcher’s signature: _______________________________

Faculty of Kinesiology and Health Studies
Centre for Kinesiology, Health and Sport, Room 173
3737 Wascana Pkwy, Regina, Saskatchewan S4S 0A2
Appendix M: UofR Ethics Approval

UNIVERSITY OF
REGINA

OFFICE OF RESEARCH SERVICES

MEMORANDUM

DATE: January 26, 2010
TO: Stephanie Miller
Kinesiology & Health Studies

FROM: Dr. Bruce Plouffe
Chair, Research Ethics Board

Re: Play Pals: Increasing Physical Activity through Near-Peer Role Modeling and Mentoring (File # 54S0910)

Please be advised that the University of Regina Research Ethics Board has reviewed your proposal and found it to be:

☐ 1. APPROVED AS SUBMITTED. Only applicants with this designation have ethical approval to proceed with their research as described in their applications. For research lasting more than one year (Section 1F). ETHICAL APPROVAL MUST BE RENEWED BY SUBMITTING A BRIEF STATUS REPORT EVERY TWELVE MONTHS. Approval will be revoked unless a satisfactory status report is received. Any substantive changes in methodology or instrumentation must also be approved prior to their implementation.

☐ 2. ACCEPTABLE SUBJECT TO MINOR CHANGES AND PRECAUTIONS (SEE ATTACHED). Changes must be submitted to the REB and approved prior to beginning research. Please submit a supplementary memo addressing the concerns to the Chair of the REB.** Do not submit a new application. Once changes are deemed acceptable, ethical approval will be granted.

☐ 3. ACCEPTABLE SUBJECT TO CHANGES AND PRECAUTIONS (SEE ATTACHED). Changes must be submitted to the REB and approved prior to beginning research. Please submit a supplementary memo addressing the concerns to the Chair of the REB.** Do not submit a new application. Once changes are deemed acceptable, ethical approval will be granted.

☐ 4. UNACCEPTABLE AS SUBMITTED. The proposal requires substantial additions or redesign. Please contact the Chair of the REB for advice on how the project proposal might be revised.

Dr. Bruce Plouffe

cc: Dr. June LeDrew – Faculty of Kinesiology & Health Studies

** supplementary memo should be forwarded to the Chair of the Research Ethics Board at the Office of Research Services (Research and Innovation Centre, Room 109) or by e-mail to research.ethics@uregina.ca

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