A STUDENT’S CHOICE: ENROLLMENT IN ELECTIVE PHYSICAL EDUCATION

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By

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ABSTRACT

School-based physical education is a critical setting for the promotion of physical activity and health among adolescents. However, enrollment in physical education significantly decreases when physical education becomes an optional subject in grade 11, with only 10% of females and 22% of males choosing to enroll. Limited research has identified individual and social environmental perceived barriers to enrollment in elective physical education. Further, no research has explored perceived individual and social environmental facilitators to electing to enroll in physical education. Thus, the purpose of the study was to identify perceived barriers and facilitators to intention to enroll in elective physical education among a diverse group of female and male adolescents using focus group methodology.

Two schools were purposely selected to participate in this study, one with the highest enrollment in grade 11 physical education (57%) and one with the lowest enrollment in grade 11 physical education (33%). By selecting schools with the highest and lowest enrollment, comparisons were made between the perceived barriers and facilitators identified by the participants in a school with high enrollment and a school with low enrollment. However, when participant recruitment occurred, no male students at the high enrollment school indicated they did not intend to enroll in grade 11 physical education. In order to attain sufficient participant recruitment within each required group (i.e., male- no intention group) the school with the second highest enrollment in grade 11 physical education (40%) was included within the study.

Grade 10 adolescents (N=63) with either an intention to enroll or no intention to enroll in grade 11 physical education participated in a focus group interview. Focus
groups were separated based on gender (female/male) and intention to enroll in grade 11 physical education (intention/no intention). Following the completion of the focus group interviews barriers and facilitators were categorized, using McLeroy’s ecological model, as individual level (e.g., intrapersonal) or social environmental (e.g., interpersonal, institutional, community).

Findings revealed several factors that influenced students’ enrollment intention. However, differences were minimal between factors reported by students in the high and low enrollment schools. Differences were more prominent between gender and intention. These differences between females and males and between participants who were intending to enroll and participants who were not intending to enroll had consistent overarching themes. At the individual level (i.e., intrapersonal) four factors were associated with enrollment intention: past experience, self-efficacy, personal choice: scheduling, and knowledge. Several social environmental factors (interpersonal, institutional, and community) were also reported. These included parents, friends, teammates/coaches, teacher, course curriculum, and activity opportunities within the community.
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CHAPTER 1

1.1 INTRODUCTION

Physical activity plays an important role in optimal growth and development of adolescents (Sallis & Patrick, 1994; Watts, Jones, Davis, & Green, 2005; Wharf Higgins, Gaul, Gibbons, & Van Gyn, 2003). An active lifestyle during the first two decades of life provides protection from chronic diseases such as cardiovascular diseases and diabetes, and can reduce the risk of osteoporosis and certain types of cancers (Biddle, Bower, & Stensel, 2004; Sallis & Patrick, 1994; Wharf Higgins et al., 2003). In addition to disease-prevention benefits, physical activity contributes to quality of life, psychological health, the ability to engage in leisure activities, and the reduction of childhood and adolescent obesity (Biddle et al., 2004; Janssen et al., 2005; Sallis & Patrick, 1994).

Despite these benefits, physical activity rates decline substantially during youth with high rates of inactivity starting in childhood and increasing throughout adolescence (Craig, Cameron, Russell, & Beaulieu, 2001; Fraser-Thomas & Beaudoin, 2004; Hagger, Chatzisarantis, & Biddle, 2001). Research has indicated 82% of Canadian youth are not sufficiently physically active at the recommended levels of at least 60 minutes on 5 or more days each week (Cameron & Craig, 2004). Adolescent inactivity is strongly linked to adolescent obesity, which in turn may increase cardiovascular mortality and morbidity during adulthood, regardless of adult weight (Epstein, 1995; Schonfeld-Warden & Warden, 1997; Watts et al., 2005). In addition, the health consequence of inactivity during adolescence has the potential to create considerable future burdens on health services and costs (Magarey, Daniels, Boulton, & Cockington, 2003). In recent years the
economic burden of illness or injury due to physical inactivity was $5.3 billion (Katzmarzyk & Janssen, 2004).

One avenue to potentially impact physical activity patterns in adolescents is through school-based physical education programs (Dale, Corbin, & Dale, 2000; Robertson-Wilson, Levesque, & Richard, 2007; Telama et al., 2005). Since adolescents spend a large majority of their day within a school setting, physical education can provide the opportunity to accumulate time spent participating in physical activity and help adolescents reach the recommended levels of daily activity (Dale et al., 2000).

Although school-based physical education can positively impact activity levels of adolescents, participation in Canadian physical education classes declines tremendously when physical education becomes an option. In Canadian schools physical education requirements vary and physical education becomes an elective at different grade levels. In some parts of Canada (e.g., Saskatoon; British Columbia) physical education is mandatory in both grades 9 and 10. In other areas, physical education is only required in grade 9 (e.g., Ontario). Regardless of specific requirements, the steepest decline in enrollment rates in physical education occur during the transition from mandatory physical education to elective physical education. In Ontario when physical education becomes an option in grade 10, enrollment significantly decreases with student enrollment dropping from 98% in grade 9 to 49% in grade 10 (Dwyer et al., 2006). In British Columbia low participation in physical education becomes prominent when physical education becomes an option in the 11th grade with enrollment significantly decreasing to only 10% of female and 22% of male adolescents (Gibbons, Wharf Higgins, Gaul, & Van Gyn, 1999). Since adolescents spend the majority of their day in
school, physical education has the potential to play a vital role in addressing the decline in physical activity among adolescents (Cale, 2002; Gibbons & Gaul, 2004; Kahn et al., 2002; Trudeau & Shephard, 2005). School physical education programs are important because they can reach large numbers of adolescents during a time when lifestyle attitudes and patterns of living related to physical activity are most malleable (Pate et al., 2005). As lifestyle attitudes and patterns of living begin to develop during adolescence and continue throughout adulthood this decline in physical activity is disconcerting (Pate et al., 2005). Research has indicated physical inactivity during childhood and adolescence is associated with physical inactivity during adult life (Telama, Yang, Laakso, & Viikari, 1997).

In order to understand an individual’s decision to choose a behavior, such as enrolling in elective physical education, it is necessary to understand the correlates of a behavior (Nahas, Goldfine, & Collins, 2003). Correlates refer to those factors that are associated with behavior (Bauman, Sallis, David, Dzewaltowski, & Owen, 2002). Factors that are perceived as discouraging a behavior are characterized as barriers. Factors that are perceived to promote a behavior are termed facilitators (Nahas et al., 2003). Barriers and facilitators may include perceived personal and social environmental factors (McLeroy, Bibeau, Steckler, & Glanz, 1988). These factors (i.e., barriers and facilitators) may influence decisions to enroll in physical education. Specifically, barriers and facilitators may be perceived as internal personal factors, such as an individual’s level of confidence, or perceived as occurring in the external social environment, such as a lack of social support from parents to enroll in elective physical education (McLeroy et al., 1988).
In order to focus on both personal factors and social environmental factors to enrollment in elective physical education research suggests a systematic approach to classification of these barriers and facilitators is needed (Gyurcsik, Spink, Bray, Chad, & Kwan, 2006; Sallis & Owen, 1999). The models used in previous research suggest that physical activity is influenced by three domains: intrapersonal, social, and environmental (Sallis & Owen, 1999). However, a limitation of the use of these models is the broad categorization of social and environmental factors. The ecological model developed by McLeroy and colleagues (1988) is a conceptual framework that serves to direct attention to both personal and social environmental factors and uncover different levels of social environmental factors (Gyurcsik et al., 2006; Humbert et al., 2006; McLeroy et al., 1988). By using the ecological model (McLeroy et al., 1988) focus group questions can be structured to uncover both personal and social environmental factors. Further, barriers and facilitators identified by participants can be categorized into one of five ecological categories: intrapersonal, interpersonal, institutional, community, and public policy. The classification of barriers and facilitators into distinct categories is essential in order to develop effective programs that can be specifically designed to alleviate barriers or target facilitators within these specific categories (Gyurcsik et al., 2006; McLeroy et al., 1988).

1.1.1 Statement of the purpose

The purpose of this study was to understand the factors that were associated with intention to enroll in grade 11 elective physical education among a diverse group of female and male adolescents. To achieve the purpose, three research questions were examined:
1. What were the perceived barriers to enrollment intention in elective physical education among female and male adolescents?

2. What were the perceived facilitators to enrollment intention in elective physical education among female and male adolescents?

3. What were the similarities and differences of perceived barriers and facilitators among female and male adolescents between the high enrollment schools and the low enrollment school?

1.1.2 Importance

This research was needed for three primary and related reasons. First, Canadian adolescents are failing to meet the recommended level of physical activity for optimal growth and development (Boyce, 2004). Research has indicated a mere 18% of adolescents are active enough for optimal health benefits (Craig & Cameron, 2004). Since adolescents spend the majority of their day in school, physical education has the potential to play a vital role in the decline in physical activity among adolescents (Cale, 2002; Gibbons & Gaul, 2004; Kahn et al., 2002; Trudeau & Shephard, 2005).

Second, school-based physical education programs are an ideal setting to help address the low levels of physical activity among adolescents, with benefits of regular participation extending beyond the high school years (Cale, 2002; Gibbons & Gaul, 2004; Kahn et al., 2002; Trudeau & Shephard, 2005). Physical education programs provide students with an opportunity to develop the attitudes, skills, and knowledge needed to lead active healthy lifestyles within a school setting that encompasses the majority of youth (Cale, 2002; Gibbons & Gaul, 2004).
Third, students are more likely to be physically active outside of school on days they participate in school-based physical education programs than on days they do not participate in school-based physical education (Dale et al., 2000). Thus, physical education classes can increase physical activity among adolescent students during the school day and after school hours. Although school-based physical education can positively impact activity levels of adolescents, participation in physical education classes declines tremendously when physical education becomes an option with 90% of females and 78% of male adolescents not enrolling in elective physical education (Gibbons et al., 1999). If students do not elect to enroll in physical education programs, they will not receive the benefits school-based physical education programs can provide. Therefore, it is important to understand the factors influencing a student’s decision to enroll in physical education when it becomes a choice.

In addition to expanding the research on barriers and facilitators to enrollment in elective physical education, this research addressed one additional shortcoming in the literature – the lack of research with male students. Previous research has focused only on factors influencing enrollment in school-based physical education programs among female adolescents (Gibbons & Gaul, 2004; Gibbons et al., 1999). However, the issue of low enrollment in physical education also exists among male students (Gibbons et al., 1999). Male adolescents cannot be overlooked simply because their enrollment in elective physical education is slightly higher than female enrollment. Male adolescents were included in the study because the enrollment in grade 11 physical education among male students is only 22% (Gibbons et al., 1999). Examination of perceived barriers and facilitators to enrollment in elective physical education in both females and males will
lend insight into whether females and males experience the same and/or different perceived barriers and facilitators to enrollment in elective physical education. This information can assist in targeting gender specific factors which influence one’s enrollment in elective physical education.

In sum, this research was needed to better understand how to increase physical activity of older adolescents through participation in school-based physical education. The exploration of the factors involved in the decision to enroll in elective physical education among adolescents is an under-investigated area of research. By understanding what hinders and/or promotes students’ enrollment in elective physical education, specific barriers and facilitators can be targeted, which in turn should increase intention and actual enrollment in elective school-based physical education programs (Baranowski, Anderson, & Carmack, 1998).

1.2 Literature Review

1.2.1 Benefits of Physical Activity During Adolescence

The benefits of physical activity during adolescence are well documented (United States Department of Health and Human Services, 1996; World Health Organization, 2002). Physical activity and fitness in adolescence is recognized as contributing to physical and mental health and the prevention of disease and other health problems later in life (Allison et al., 2005; Hallal, Victoria, Azevedo, & Wells, 2006). Sallis and Patrick (1994) indicated there are two-health related rationales for adolescent physical activity: (1) to promote physical and psychological health and well being during adolescence and (2) to promote physical activity to enhance future health by increasing the probability of remaining active as an adult.
Physical activity is essential during childhood and adolescence for physical and psychological health (Public Health Agency of Canada, 2006; Sallis & Patrick, 1994). Physical activity promotes healthy growth and development and helps maintain healthy body weight, cardiovascular fitness, and strength (Public Health Agency of Canada, 2006). In addition, bone mass develops rapidly during adolescence (Public Health Agency of Canada, 2006; Sallis & Patrick, 1994). Therefore, physical activity during adolescence is critical in reducing the risk of osteoporosis later in life by reducing the rate of bone mineral loss by increasing bone density (Public Health Agency of Canada, 2006; Sallis & Patrick, 1994).

Regular physical activity benefits the psychological health of adolescents (Tremblay, Inmann, & Willms, 2000). Adolescents who participate in regular physical activity report lower levels of anxiety and depression, higher levels of self-esteem, and are less likely to use alcohol, tobacco, or other drugs (Sallis & Patrick, 1994; Tremblay Inmann, & Willms, 2000; Wharf Higgins et al., 2003). Furthermore, adolescents who engage in physical activity tend to perform better academically than those who are not regularly active (Dwyer, Sallis, Blizzard, Lazarus, & Dean, 2001; Shepard, 1997).

It is well documented that the physical activity patterns established in adolescence persist into adulthood (Hallal et al., 2006). Recent evidence suggested individuals who are physically active during adolescence, particularly from age 9 to 18 years, continue this trend throughout adulthood (Telama et al., 2005). Therefore, the lifestyles adolescents lead set the pattern for physical activity during adulthood.

Although the effects of disease and other health problems including osteoporosis and cardiovascular disease manifest in adulthood, it is understood that their development
begins in childhood and adolescence (Hallal et al., 2006; Twisk, 2001). Regular physical activity during adolescence reduces the risk of premature mortality, coronary heart disease, hypertension, colon cancer, and diabetes and improves the health of muscles, bones, and joints later in life (United States Department of Health and Human Services, 1996). Further, a relationship exists between adolescent and adult obesity (Schonfeld-Warden & Warden, 1997; Watts et al., 2005). An estimated 80% of obese adolescents become obese adults (Schonfeld-Warden & Warden, 1997; Watts et al., 2005) with obesity in adolescence predicting a broad range of adverse health effects in adulthood (Must, Jacques, Dallal, Bajema, & Dietz, 1992). In sum, physical activity is an important component in a healthy lifestyle, with numerous physical and psychological benefits for adolescents, with these benefits continuing into adulthood (United States Department of Health and Human Services, 1996).

1.2.2 Health Consequences and Costs of Inactivity During Adolescence

Despite the numerous physical and psychological benefits of a physically active lifestyle, the prevalence of physical inactivity is increasing during adolescence. As a result, the percentage of Canadian adolescents who are overweight or obese is also increasing (Shields, 2006; Twisk, 2001). Overweight and obesity rates among adolescents 12-17 years of age have doubled over the past 25 years (Shields, 2006). In 2004, 26% of adolescent girls and 32% of adolescent boys in Canada were considered overweight (Shields, 2006). Furthermore, 11% of adolescent girls and 7% of adolescent boys in Canada were considered obese (Shields, 2006). This prevalence of overweight and obesity rates is important as excess weight in adolescence often persists into adulthood (Shields, 2006). In addition, research has indicated obesity is strongly
associated with increased cardiovascular mortality and morbidity during adulthood (Guo, Wu, Chumlea, & Roche, 2002; Koplan, Liverman, & Kraak, 2005; Lobstein, Baur, & Uauy, 2004). Therefore, efforts to prevent and manage obesity during adolescence are imperative (Biddle et al., 2004).

The health consequences of inactivity during adolescence and obesity during adolescence have the potential to create considerable future burdens on health services and costs (Magarey, Daniels, Boulton, & Cockington, 2003). The World Health Organization (WHO, 2002) reported 1.9 million global deaths were attributed directly to physical inactivity in recent years. Specifically, physical inactivity caused 15% of some cancers, diabetes, and heart disease (WHO, 2002). In addition, obesity has been linked to physical inactivity and is predicted to replace smoking as the leading cause of premature, preventable deaths in the United States, with Canada predicted to follow a similar trend (WHO, 2002).

The economic burden in 2001 due to illness or injuries stemming from physical inactivity was $5.3 billion, with this number representing 2.6% of all health care costs in Canada that year (Katzmarzyk & Janssen, 2004). Although the symptoms of inactivity are not apparent until much later in life, it is known that the origin of many chronic diseases lies early in childhood and continues throughout adolescence (Twisk, 2001).

1.2.3 Current Physical Activity Levels of Adolescents

Regardless of the benefits of physical activity and obvious drawbacks of physical inactivity, Canadian adolescents are failing to meet the recommended level of physical activity for optimal growth and development (Craig & Cameron, 2004). Evidence has indicated that young people do not participate in physical activity of sufficient intensity,
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duration, and frequency for adequate health benefits (Hagger et al., 2001). In 2000, 64% of Canadian youth were not sufficiently active to meet the recommended guidelines of at least 60 minutes of physical activity on at least 5 days per week. Recently, this number increased to an alarming 82% (Craig & Cameron, 2004).

These high rates of inactivity start in childhood and worsen throughout adolescence with the most dramatic decline occurring during 15-19 years of age (Craig, Cameron et al., 2001). Research has indicated that as grade level in school increases, adolescent physical activity rates decrease (Craig & Cameron, 2004; Craig et al., 2001). The decline in activity rates may be linked to the percentage of students who receive daily physical education, as previous research has indicated that as students advance through school the percent of students enrolled in physical education also declines (Craig & Cameron, 2004; Craig et al., 2001).

High rates of inactivity are particularly evident among adolescent females, who have the lowest activity level of all student groups (Fraser-Thomas & Beaudoin, 2004). The Canadian Fitness and Lifestyle Research Institute (2003) reported only 30% of Canadian girls 12-19 years of age were considered active. Unfortunately, this number decreased in recent years to an alarming 12% (Craig & Cameron, 2004).

Male adolescents activity rates are higher than their female counterparts, however they still fail to meet the recommended level of physical activity. Similar to females, the percentage of active adolescent males has decreased dramatically in recent years. In 2000, 40% of Canadian boys were considered active enough for optimal growth and development (Craig et al., 2001). Recently this number decreased to a distressing 24% (Craig & Cameron, 2004).
1.2.4 Effectiveness of School-Based Physical Education Programs

It is well known that schools can play a vital role in encouraging physical activity among children and youth (Cale, 2002; Ernst & Pangrazi, 1999; McKenzie, 1999; Stone, McKenzie, Welk, & Booth, 1998). An integral component of school-based strategies designed to increase physical activity is physical education programs. These programs play an important part in addressing the decline of physical activity in adolescents (Stone et al., 1998). The aim of physical education programs is the development of physically educated individuals who understand the importance of living an active healthy lifestyle (Saskatchewan Learning, 2004). A physically educated person is physically literate, which means they know how and why to move in a variety of ways, they appreciate the importance of physical activity, and choose to regularly participate in physical activity (CAPHERD, 2005). School-based physical education programs provide students with an opportunity to develop the attitudes, skills, and knowledge needed to lead active healthy lifestyles (Cale, 2002; Gibbons & Gaul, 2004). Since children and adolescents spend a large majority of their day in school and receive a compulsory physical education course for at least 9 of 12 years of schooling, school-based physical education programs present an tremendous opportunity to positively influence the physical activity patterns of children and adolescents (Cale, 2002; Gibbons & Gaul, 2004; Kahn et al., 2002; Trudeau & Shephard, 2005).

The overall objective of school physical education programs is the promotion of lifelong physical activity (Gibbons & Gaul, 2004). The implementation of quality physical education programs that meet the required time allotments can assist in the development of healthy active lifestyles in adolescents (Mandigo, 2004). Research has
showed that students are more likely to be physically active on days they receive physical education than on days they receive no physical education at school (Dale et al., 2000). In addition, students who completed three or more semesters of high school physical education courses were significantly more active than their peers who completed fewer than three semesters of high school physical education (Mears, 2005).

The majority of Canadian youth are not meeting the recommended physical activity standards while in school (Mandigo, 2004; Trudeau & Shepard, 2005). The Canadian Association for Health, Physical Education, Recreation, and Dance (2006) recommends that every student attending primary and secondary schools across Canada receive 150 minutes of quality physical education programming per week comprised of both moderate and vigorous activity (Canadian Association for Health, Physical Education, Recreation, and Dance, 2006). Despite this recommendation, Hardman and Marshall (2000) determined that only 57% of Canadian schools met the requirements for allotted time devoted to physical education. In addition, 20% of Canadian parents indicated that their adolescent child received no physical education at all (Craig et al., 2001). Moreover, approximately 89% of secondary schools allowed students to be exempt or excused from participation in physical education classes (Elder et al., 2007; McKenzie & Kahan, 2004).

The physical education classes that students do participate in typically last between 40-50 minutes (Mandigo, 2004). During these classes students engaged in moderate to vigorous activity for 20% - 30% of the class (McKenzie et al., 1995). In addition, the number of weeks of physical education classes decreases by grade (Craig et al., 2001). Secondary schools offer fewer weeks of physical education classes than
elementary schools, with the majority of secondary physical education classes running for only half of the school year (Canadian Fitness and Lifestyle Institute, 2003).

In addition, in the majority of Canadian schools physical education is not required during the final 2 years of education (Trudeau & Shepard, 2005). As a result, the percentage of students enrolled in physical education classes declines as students’ progress from the 9th grade to the 12th grade (Dwyer et al., 2006). In 2006, 98% of Canadian grade 9 students were enrolled in physical education (Dwyer et al., 2006). These percentages decrease in the 11th and 12th grade when physical education becomes an elective (Gibbons & Gaul, 2004; Humbert, 1995). Research conducted in British Columbia indicated that only 10% of females and 22% of males are enrolled in physical education when it becomes an optional subject in grade 11 (Gibbons & Gaul, 2004).

Adolescents’ attitudes towards physical education are likely related to their decision to enroll in school-based physical education programs when given a choice (Gibbons & Gaul, 2004; Gibbons et al., 1999; Humbert, 1995). One factor that influences students’ attitudes towards physical education is their past experiences in physical education classes (Gibbons & Gaul, 2004; Gibbons et al., 1999; Humbert, 1995). These experiences are greatly influenced by the physical education program a school is offering (Gibbons & Gaul, 2004; Gibbons et al., 1999; Humbert, 1995). If a school’s physical education program is not meeting the needs of the students and fails to provide them with positive physical education experiences, students’ may choose not to enroll in physical education when it becomes a choice (Gibbons & Gaul, 2004; Gibbons et al., 1999; Humbert, 1995). However, if a school offers an exemplary physical education program when physical education is a required course their experiences may be positive and in
turn they may decide to participate in physical education when it becomes an elective (Gibbons & Gaul, 2004; Gibbons et al., 1999; Humbert, 1995). Thus, the quality of a school’s physical education program may influence students’ enrollment in elective physical education (Humbert, 1995). No research to date has investigated the role of an exemplary physical education program has on students’ decision to enroll in physical education when it becomes an option. Therefore, the identification of factors associated with students’ decision to enroll or not enroll in school-based physical education programs could provide useful information in order to improve the appeal of curricular content and perhaps increase enrollment in elective physical education (Luke & Sinclair, 1991).

1.2.5 Barriers

To address the decline of enrollment in elective physical education, it is essential to identify factors that influence adolescents’ decision to enroll in physical education when they are given a choice. In order to understand the decision-making process of adolescent students it is important to examine both the factors preventing their choice to enroll in elective physical education and the factors promoting their choice to enroll in elective physical education (Nahas et al., 2003). These factors are called barriers and facilitators (Nahas et al., 2003). Barriers represent obstacles to engaging in a behavior and may reflect perceived personal factors (personal barriers), such as lack of motivation or may represent perceived environmental factors (social environmental barriers), such as lack of support from family and friends (Allison et al., 1999). Moreover, perceived barriers have been shown to be associated with exercise intention among adolescents and have been identified as an important and consistent factor associated with health
behavior, particularly physical activity (Allison et al., 1999; Tappe, Duda, & Menges-
Ehrnwald, 1990). However, limited studies have examined perceived barriers among
adolescents and their relationship to physical activity in various physical activity settings
(Allison et al., 1999). Therefore, in order to understand the intention to enroll in school-
based elective physical education among adolescents, population specific barriers need to
be identified.

Limited research has examined specifically the barriers to enrollment in elective
physical education among female adolescents. However, studies have explored female
experiences within physical education settings (Gibbons & Gaul, 2004; Gibbons et al.,
1999; Humbert, 1995). A significant number of females are dissatisfied with their
physical education experience throughout childhood and adolescence (Gibbons & Gaul,
2004; Humbert, 1995). This becomes evident when physical education becomes an
elective in their grade 11 year. In the 11th and 12th grade, enrollment significantly
decreases each year with few female students enrolled in optional physical education
programs (Gibbons & Gaul, 2004). Research has indicated a mere 10% of female
students choose to enroll in grade 11 elective physical education (Gibbons & Gaul,
2004). As the likelihood of being physically active later in life is reduced significantly if
physical activity is limited during adolescence these statistics are disconcerting (Telama
et al., 2005).

Previous research has determined that the lack of female students enrolled in
elective physical education may be due to the opportunities provided to female
adolescents during mandatory physical education classes (Gibbons & Gaul, 2004;
Gibbons et al., 1999; Humbert, 1995). Numerous researchers have indicated that the
opportunities provided to females are not meaningful or motivating (Gibbons & Gaul, 2004; Gibbons et al., 1999; Humbert, 1995). Humbert (1995) examined the experiences of 50 grade 9-12 females within a Canadian secondary school. The results from this study indicated the importance of “having fun” within a physical education setting. The participants also stressed the desire for non-traditional physical activities, reduced emphasis on competition, greater use of individualized assessment techniques, and a physical education setting that was both respectful and safe (Humbert, 1995).

Limited research has explored perceived barriers to participation in elective physical education among female adolescents. Gibbons, Higgins, Gaul, and Van Gyn (1999) used focus group interviews to gain insight on factors that may discourage or encourage enrollment in elective physical education among female students in grade 10 and 11. From the discussions with these young women, eight themes emerged: grade 10 physical education needs to change, students need more choice and control over activities, greater focus on participation rather than skill, enjoyment, accessibility in timetable, physical education valued as an important pursuit, greater academic content, and increased knowledge of the grade 11 curriculum (Gibbons et al., 1999).

The Gibbons et al. (1999) study was a preliminary study exploring factors affecting enrollment choice in elective physical education and therefore the focus was mainly on concept and theme development (Gibbons et al., 1999). The results provided useful information on factors that discourage female students from enrolling in grade 11 elective physical education. However, three major limitations exist within the Gibbons et al. (1999) study and were addressed in the present study. First, the majority of factors identified by participants were personal factors that inhibited enrollment (i.e., barriers),
such as a lack of fun and enjoyment in current physical education programs and negative experiences in previous physical education programs. Limited social environmental barriers were identified. Second, factors which encourage enrollment (i.e., facilitators) were not distinctly identified. Third, all participants in the Gibbons et al. (1999) study were female.

Since females are consistently less involved in physical activity than males at all ages, there is justifiably more attention in the literature devoted to females (Allison et al., 2005; Sallis, Prochaska, & Taylor, 2000). Nevertheless, participation in physical activity among the male population also decreases with increasing age and perceived barriers associated with participation in physical activity are likely to differ between genders (Allison et al., 2005). As indicated earlier, only 24% of male adolescents are sufficiently active for optimal growth and development (Cameron & Craig, 2004). In addition, 32% of male adolescents are considered overweight compared to 26% of female adolescents (Shields, 2006). Therefore, it is essential to examine perceived barriers to physical activity among male adolescents (Allison et al., 2005).

In addition to male adolescents being more active than females, male enrollment in physical education is also higher than their female classmates and consequently little attention has been paid to the experiences of male students in physical education classes (Gibbons et al., 1999). However, research conducted in British Columbia has shown the percentage of male students enrolled in elective physical education in the 11th grade is only 22% (Gibbons & Gaul, 2004). Therefore, perceived barriers to enrollment in elective physical education among male adolescents cannot be disregarded simply due to the fact their activity levels are higher than female adolescents.
1.2.6 Facilitators

In order to fully understand the decision-making process of enrollment in elective physical education, all factors that influence students’ decisions to enroll are of equal importance. Factors, which promote a behavior, such as an individual’s level of confidence, one’s motivation, or support provided by family and friends, can be conceptualized as facilitators (Nahas et al., 2003). Facilitators may be biologically determined or they may exist in the physical or social environment in which one lives (Nahas et al., 2003). Identifying facilitators is important from an intervention perspective in that targeting an enhancement in perceived personal and social environmental facilitators in concert with the targeted alleviation of perceived personal and social environmental barriers may be more effective than focusing solely on facilitators or solely on barriers (cf. Rimmer, Riley, Wang, Rauworth, & Jurkowski, 2004). To date, in the physical education domain, limited research has specifically examined perceived facilitators to enrollment in elective physical education.

Although research is limited, one study explored the factors that encourage enrollment in elective physical education among female adolescents. The study conducted by Gibbons and colleagues (1999), previously discussed in the barriers section, also revealed factors that encouraged enrollment in elective physical education among females. As indicated earlier, factors facilitating enrollment were not explicitly targeted in this study. However, insight was gained on factors that may be encouraging to their enrollment in physical education. These factors included a positive environment in which to learn, the desire for variety and choice in physical education activities, more academic content within the course, and greater accessibility within their course
timetable. This study provided information regarding female adolescent participation in physical education. However, greater information on factors which promote enrollment is needed in order to develop an understanding of both female and male students’ decision to participate in physical education when given a choice.
CHAPTER 2

2.1 METHODOLOGY

2.1.1 Research Design

The purpose of this study was to explore perceived barriers and facilitators to intention to enroll in elective physical education among female and male adolescents. In order to understand the perceived barriers and facilitators of the participants it was necessary to allow participants to discuss the factors influencing their enrollment intention. Qualitative research was used to gain an understanding of the decision-making process used by adolescents when deciding to enroll in elective physical education. The qualitative approach to research was utilized with the intent to gather and collect insightfully rich, meaningful, and textured data (Creswell, 2002). Qualitative research is a valuable method to understand and interpret aspects of the world, increase the universal knowledge of objective and subjective lived experiences, and make sense of the phenomenon being studied (Thomson, Nelson, & Silverman, 2005).

Previous research on barriers and facilitators influencing enrollment among adolescents in elective physical education is limited. However, barriers influencing physical activity within the adolescent population have been explored in the literature. Previous research on barriers to physical activity has used quantitative questionnaires containing barriers identified for the participant by the researcher (Brawley, Culos-Reed, Angrove, & Hoffman-Goetz, 2002; Brawley et al., 1998). Barriers and facilitators to enrollment in elective physical education factors cannot be pre-determined and therefore it is difficult to develop quantitative questionnaires. As a result, a qualitative research design was utilized in order for individual experiences and interpretations to be captured.
The intent of qualitative research is to capture the participants’ views, understandings, and meaning of the topic of study. Using a qualitative approach allowed participants to express their experiences and identify the barriers and facilitators that apply to their personal lives (Thomson et al., 2005). Therefore this study used open-ended qualitative questions to gather information from the participants.

2.2 Participants

As the purpose of this study was to explore intention to enroll in grade 11 elective physical education, female and male grade 10 students from purposefully selected public high schools in Saskatoon were asked to participate. Grade 10 physical education (Wellness 10) is compulsory in the Saskatoon Public School Division and taught in gender-segregated classes. Physical education is an optional subject in the 11th and 12th grade and becomes co-educational. Students selected their classes for grade 11 in the second semester of grade 10.

After receiving ethical approval from the University of Saskatchewan and obtaining permission to conduct research from the Director of Education of the school division, school selection and participant recruitment began. With the cooperation of the participating school division, two schools were initially purposely selected to participate in the study. The school with the highest percentage (57%) and the lowest percentage (33%) of students enrolled in grade 11 elective physical education in the 2007-2008 school year were selected. By selecting the schools with the highest and lowest enrollment, comparisons were made between the perceived barriers and facilitators identified by the participants within a school with an exemplary physical education program and a school with a physical education program that may not be meeting the
needs of the students. However, when participant recruitment occurred and a questionnaire was administered asking participants about their enrollment intention (the questionnaire will be further discussed in a proceeding section), no male students in the high enrollment school indicated that they did not intend to enroll in grade 11 physical education. In order to attain sufficient male participants within each required group (i.e., male-no intention group) the school with the second highest enrollment (40%) in grade 11 physical education was also included in the study. As a result, male participants were selected from three public high schools in Saskatoon, two high enrollment schools and one low enrollment school.

After the schools were identified, a detailed abstract that outlined the intent and details of the study was presented to the principals of the selected schools. Physical education (Wellness 10) teachers from each of the participating schools were asked if their classes would participate in the study. Female and male participants were purposefully sampled with the help of the school physical education teachers. Students were selected to participate in the study based on the following criteria:

- Assent and consent forms completed.
- Intention to enroll in grade 11 elective physical education (i.e., intention to enroll, no intention to enroll).
- A diverse level of participation in physical activity within the school and/or community.
- Respect the thoughts and ideas of others in the focus group who may have differing opinions of the topics being discussed and feel comfortable talking in group situations.
Using these criteria 63, grade 10 students were selected to participate in this study. Of these 63 students, 31 students were from the schools with the high enrollment and 32 students were from the school with low enrollment. Twenty-four students were females and 39 students were males. The participants were stratified into focus groups by school, gender, and enrollment intention (see Appendix A).

Every effort was made to ensure that participants understood participation in the focus groups was entirely voluntary and there was no reward for their participation in this study or punishment for declination of participation in this study. All students who volunteered for this study were informed that they could withdraw at any time without prejudice or penalty. The data collected was kept as anonymous and confidential as possible. However, as group interviews were involved in the study, there were limits to which confidentiality of information could be ensured, as discussions took place amongst peers. However, every effort was made to stress the importance of understanding and respecting issues of privacy in-group settings. No names or other means of identification were or will be used in any printed or published reports.

2.3 Description of Schools

As suggested by Morse and Richards (2002), documents were collected to give background to the present study and to provide a thorough description of the participating schools. Collecting documents that exist independent of the research process is a technique that can be used to provide greater detail to a study (Morse & Richards, 2002).

An environmental scan was conducted on the schools to gain information on physical education programming, physical activity opportunities in the school and within the community, and to describe the facilities in each school (see Appendix B).
The purpose of an environmental scan is to gather information and data to assist in the topic of study (White, 2005). The information gained from the scan should be used to understand how a system or institution functions (White, 2005). Through the environmental scan, documents were collected from the three participating schools. These documents included a course selection guide from each participating school and grade 10 and 11 physical education yearly plan.

The course selection guides were used to provide a detailed description of the academic programming offered at each school and to better understand the barriers and facilitators described by the participants (i.e., course schedule). Each school provided a description of the grade 11 physical education course within the school’s course selection guide. Students use the course selection guide to view course descriptions in order to assist in their class selections. Based on these descriptions, the grade 11 physical education course offered at each of the participating schools was similar (see Appendix C). Yearly plans were also collected and provided information on the activities within the grade 10 and 11 physical education courses. This information assisted in the understanding of reported factors to enrollment intention (e.g., course curriculum).

Completing an environmental scan on the three participating schools provided information and data that were needed to understand the results of the study and provided a more thorough understanding of the physical education programs in each participating school. The environmental scan was used to help describe each school in sufficient detail and to better understand the perceived barriers and facilitators identified by the participants.
The environmental scan determined that the three schools provided a similar grade 11 physical education course. Several other similarities were present among the participating schools. The interscholastic sports teams offered at each school were similar. All three schools offered badminton, basketball, cross country, curling, football, golf, soccer, track and field, volleyball, and wrestling. Each school had a fitness center that was available for student use during physical education class or during school hours. Overall the three participating schools were very alike.

The two high enrollment schools showed the greatest similarities. These schools were similar in size, had comparable socioeconomic status, and comparable academic and extra curricular program offerings. The lowest enrollment school had the most distinctive differences among the three participating schools. This school was a comprehensive school and taught a wide range of subjects across the academic and vocational spectrum. The comprehensive nature allowed students to explore a vast array of courses in preparation for post-secondary studies or direct entry into the world of work (i.e., welding, construction). The low enrollment school offered a full academic program similar to the other two schools in this study, however, this school offered the most elective course choices. These unique elective courses included welding, machining, mechanics, mechanics and automotive, engineering, aviation studies, and electronics. For a full description of the participating schools see Appendix D.

2.4 Data Collection

2.4.1 Questionnaires

Once permission from the Wellness 10 teachers was given, the study was introduced to students in all the Wellness 10 classes. Interested participants were asked to
complete assent and consent forms. When assent and consent forms were returned, a
demographic questionnaire was administered to gain information on participants’ overall
academic average, ethnicity, socioeconomic status as well as school sport participation
and community activity participation. The demographic questionnaire was used to
thoroughly describe the participants and provide a better understanding of factors
influencing enrollment intention. Intention to enroll was identified through a question,
which asked students to identify their intention to enroll in grade 11 elective physical
education by checking either ‘yes’, ‘maybe’, or ‘no’. The students who selected ‘maybe’
were not asked to participate in the study. The selection criteria and organization of the
focus groups will be discussed in a following section (see Appendix E).

The International Physical Activity Questionnaire (IPAQ) was administered to
determine physical activity levels in order to further describe the participants (see
Appendix F). The IPAQ is a self-administered 7-day recall of physical activity and was
developed to provide a measure that can be used to obtain internationally comparable
data on habitual physical activity (Craig et al., 2003). The IPAQ categorized participants
into one of three levels of physical activity (i.e., low, moderate, high). These three levels
of physical activity were used to determine participants’ activity level in order to describe
the participants and better understand the factors influencing their enrollment intention.

2.4.2 Focus Group Interviews

After completing the demographic questionnaire and the IPAQ, students were
selected, based on the previously stated criteria, to participate in a focus group discussion.
Focus groups were used to explore perceived barriers and facilitators to enrollment in
elective physical education among the participants. Focus groups are an efficient
technique to gather information from several people in one session and are used to permit collection of rich descriptive data (Thomas et al., 2005). For adolescent participants, the focus group format is more enjoyable than one on one interviews and decreases the fear and anxiety regarding the interview process and can act as quality control as the participants tend to provide checks and balances on one another that can serve to curb false or extreme views (Thomas et al., 2005).

In order to achieve the most accurate responses of intention to enroll in grade 11 elective physical education, the focus group discussions were conducted as close to the completion of the course selection guide as possible. With the permission of the teacher, focus group interviews were conducted during physical education class time and lasted approximately 1 hour or to the point of saturation.

Selected participants were organized into focus groups based on school, gender, and intention to enroll in elective physical education. Homogeneous groups of students were assembled to create an environment which maximized the comfort of participants and promoted as much conversation as possible. In this study, the focus group size ranged between 4-7 participants. Patton (2002) suggests small focus groups in order to foster a sense of safety, allowing for honest conversation and discussion between participants, and the generating of rich, holistic data. A total of 12 focus group interviews were conducted. Six focus group interviews were conducted at the high enrollment schools and 6 focus group interviews were conducted at the low enrollment school. The focus groups were divided by gender and further stratified into groups based on enrollment intention.
A semi-structured interview guide was used in the focus group discussions. Semi-structured questions are used when the researcher has enough information about the phenomenon under study to develop questions about the topic but does not have enough knowledge to anticipate the participants’ answers (Morse & Richards, 2002). The interview guide was developed around the ecological model in order to uncover different levels of factors (Gyurcsik et al., 2006; McLeroy et al., 1988; Robertson-Wilson et al., 2007). The ecological approach acknowledges the dynamic interaction between the individual and elements of one’s social and physical environments (Green, Richard, & Potvin 1996; McLeroy et al., 1988; Sallis & Owen, 2002; Spink et al., 2005; Spink et al., 2006). The ecological model (McLeroy et al., 1988) has been used in previous research as a conceptual framework that serves to direct attention to both personal and environmental factors. According to the ecological model, behavior is influenced by five factors: intrapersonal, interpersonal, institutional, community and public policy (McLeroy et al., 1988). In this study, public policy factors were not assessed due to findings from previous research with adolescent populations, which indicated that adolescents did not report any public policy barriers (Gyurcsik et al., 2006). Participants

<table>
<thead>
<tr>
<th>School</th>
<th>Gender</th>
<th>Intention-Yes</th>
<th>Intention- No</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highest Enrollment School</td>
<td>Female</td>
<td>4</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>14</td>
<td>0</td>
<td>14</td>
</tr>
<tr>
<td>Second Highest Enrollment School</td>
<td>Female</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>5</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>Lowest Enrollment School</td>
<td>Female</td>
<td>10</td>
<td>6</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>9</td>
<td>7</td>
<td>16</td>
</tr>
<tr>
<td>Total</td>
<td>Female &amp; Male</td>
<td>42</td>
<td>21</td>
<td>63</td>
</tr>
</tbody>
</table>
not intending to enroll in grade 11 physical education were asked questions regarding perceived barriers, which may have prevented their intention to enroll (see Appendix G), and participants intending to enroll in grade 11 physical education were asked questions regarding perceived facilitators, which may have promoted their intention to enroll (see Appendix H). An example focus group question for the groups who were intending to enroll was: Is there anything about your community that helped you in your decision to enroll in elective physical education?

Interview guides were piloted prior to data collection. The focus group interviews were piloted with grade 10 students who were not selected to participate in the study. This procedure helped to determine thoroughness of the questions, competency of my interviewing skills, and the time frame needed to complete focus group interviews. No revisions were made to the interview questions following the completion of the piloted focus group interviews. However, the piloting of the interview guide assisted in the development of prompts following the semi-structured focus group questions.

2.5 Researcher as the Instrument

In qualitative research, the researcher is the principal instrument in the collection of data (Morse & Field, 1995). The researcher is actively collecting data to ensure that the data are of high quality and that the interpretive process is as accurate as possible (Morse & Richards, 2002). It is also the researcher who is instrumental in translating and interpreting data generated from the participants into meaningful information (Denzin & Lincoln, 2000). All researchers come into studies with biases (Thomas et al., 2005). The management of these biases is particularly important in qualitative research, as the researcher is the instrument of data collection (Thomas et al., 2005).
Since I was the primary instrument within this study, it is important to share the position I brought to this research. I am a former physical education teacher in the Saskatoon Public School Division and have taught various levels of physical education to high school students. My experiences as a physical education teacher have provided me with a strong background in school-based physical education programs. My interest in this research began in my years as a teacher at the secondary school level. I have witnessed the decreasing rate of physical activity during adolescence and I have observed the lack of adolescent participation in elective physical education courses. Through these experiences I became interested in adolescent physical activity within the school setting.

Within this study I drew upon my professional experiences to provide insight into the research questions, the data collection, and analysis procedures. In qualitative research the researcher is the key person in obtaining data from the participants (Denzin & Lincoln, 2000). I contacted the participating schools, recruited all participants, and facilitated all focus group interviews. It is through the researcher that a context is created where participants share rich data regarding their experiences in the topic of study (Denzin & Lincoln, 2000). The information elicited from the interviews depends on the ability of the interviewer to establish a connection and gain the participants’ trust (Morse & Field, 1995). I facilitated the flow of communications, identified cues, and set participants at ease throughout focus group interviews. As I have experience working closely with adolescents in a school setting, I was able to establish rapport and create comfort within the interview process. I transcribed approximately half of the interviews, and coded all the transcripts, staying close to the data throughout the entire research process. The depth of the data analysis depends on the researcher’s sensitivity,
perceptivity, informed judgments, insight and knowledge (Morse & Field, 1995). My experiences as a physical education teacher within a school system provided me with knowledgeable insight and helped me to better understand the factors influencing enrollment intention identified by the participants.

I kept a journal throughout the research process and recorded all methodological decisions made and the reasons for making them. My journal was divided into three sections, as suggested by Lincoln and Guba (1985). The first section was the logistics of the study. In this section I included my daily schedule including the focus group interview schedule. The second section of my journal was a personal dairy. This section included my personal reflection of what was occurring in terms of my own speculation and insights on the research process (Lincoln & Guba, 1985). After each focus group I wrote my thoughts and reflections on each of the interviews. The third section of my journal was a methodological log. In this section I included any methodological decisions or changes I made and the accompanying rationale behind those changes (Lincoln & Guba, 1985).

2.6 Data Analysis

In qualitative research, data analysis is an active continuous process (Morse & Field, 1995). This continuous process began with the initial conception of my study and proceeded through the entire research process. Once the data were collected and the interviews were transcribed, coding was used to transform the unstructured messy data into ideas and specific characteristics of the data.

After the focus group interviews were transcribed, descriptive coding was used to organize the transcripts. Descriptive coding is used to organize the data in a manner that
the researcher can access the factual knowledge about the participant. The transcripts were descriptively coded by school, gender and intention. Descriptive codes were used for easy accessibility and retrieval of the data and comparison of groups (i.e., high enrollment and low enrollment school comparisons) (Morse & Richards, 2002).

As previously stated, the ecological model was used to develop the focus group questions in order to uncover different levels of factors influencing enrollment intention. The ecological model was also used to categorize the different levels of barriers and facilitators discussed by the participants. The first step in categorizing the barriers and facilitators was to code the data into one of the four ecological categories. According to Morse and Richards (2002) organizing data into categories based on specific topics is called topic coding. Topic coding is useful in the first stages of analysis when the researcher is exploring the data (Morse & Richards, 2002). In topic coding broad topic categories can be later reviewed to create subtopics or further dimensions within the data (Morse & Richards, 2002). I used topic coding to categorize the factors, barriers and facilitators, into the ecological categories. After the completion of topic coding, the barriers were categorized into one of the four ecological categories (i.e., intrapersonal barriers, interpersonal barriers, institutional barriers, and community barriers) and the facilitators were categorized into one of the four ecological categories (i.e., intrapersonal facilitators, interpersonal facilitators, institutional facilitators, and community facilitators). This coding process resulted in 8 different topics (see Chart 1.0).
Once the data were organized by factor (i.e., barriers or facilitators) and ecological category (i.e., intrapersonal, interpersonal, institutional, and community), the data were further categorized using analytic coding. Analytical coding is used to develop new themes and allow the researcher to explore and develop new categories (Morse & Richards, 2002). Within the 8 previously developed categories, new themes were formed to create higher level of analysis (Morse & Richards, 2002). For example, within the category ‘institutional barriers’, further categories developed such as class scheduling and course curriculum. Once these new more analytical categories were created, the categories were stored in charts for easy accessibility and organization (see Appendix I). Morse and Richards (2002) state that good data management is essential in research where a number of codes and categories may inhibit the researcher from easily locating the data.
2.7 Quality of Results

Consistent with qualitative research methods a level of trustworthiness must be established. Trustworthiness is a quality achieved in a study when the data collected are generally applicable, consistent, and neutral (Thomas et al., 2005). Lincoln and Guba (1985) describe four concepts to establish the quality of qualitative data, which was followed in the current study. First, credibility or verification refers to the ‘truth value’ of the findings. Credibility has been addressed in this study though data saturation, data triangulation, researcher credibility, and purposeful sampling. The interviews continued until I felt data saturation was reached, meaning no new information was being revealed. Data triangulation was used to address credibility of this study. The two independent researchers read the transcripts and viewed the charts in order to confirm analysis and categorization of factors into one of the ecological categories. Discrepancies were discussed until a classification agreement was reached. In qualitative inquiry, the researcher is the primary instrument for the collection and analysis of the data. My experiences as a physical education teacher and my knowledge and background in school-based physical education programs provided credibility to the study. Credibility was also established through purposeful sampling. Participants were purposefully sampled through the help of the physical education teachers and were selected based on the criteria previously discussed.

The second concept to establish quality in qualitative research is called transferability and is defined as the potential for the results of one setting to be transferred to other settings (Thomas et al., 2005). According to Lincoln and Guba (1985), this is crucial when evaluating whether or not the results may be useful in other
settings or to those who are conducting similar research (Thomas et al., 2005). Since
generalizability is not a goal of qualitative inquiry and most qualitative research studies
do not benefit from large randomly selected populations, transferability is an important
quality to establish in qualitative studies (Thomas et al., 2005). To establish
transferability, the researcher may present reasons why a given study may apply to other
settings. Context, participants, and setting are critical when interpreting the results of
qualitative research and must be presented clearly in order for readers to evaluate the
conclusions (Thomas et al., 2005). In this study, results may be transferable to other
schools, as many schools operate in a similar fashion within a similar setting, but
ultimately the reader must determine the study’s transferability (Thomas et al., 2005). A
rich description of the setting and context is included in the methodology section. This
rich description was developed from the collection of documents, the use of websites, and
an environmental scan of each of the participating schools. This will allow readers to
become familiar with the study and assess whether the setting and results will transfer to
their particular setting or future research study. The participants were also described in
great detail using the demographic questionnaire, completed by all of the participants.
The goal of these descriptions was to provide a detailed portrayal of the schools and the
participants in an attempt to provide the reader with everything that the reader may need
to know in order to understand the findings (Morse & Richards, 2002). The sampling
strategy remained consistent throughout the study. Physical education teachers assisted in
the selection of participants which helped facilitate naturalistic generalization or the
degree to which two contexts are similar (Lincoln & Guba, 1985).
The third concept to address the quality of the data in a qualitative study is dependability (Thomas et al., 2005). Dependability or validation refers to a study’s consistency or the soundness and accuracy of the findings. To achieve dependability within this study I completed member checks. Member checks are an important procedure for verifying the findings and ensuring they are valid (Schwandt, 2001). Member checking occurs when the researcher goes back to the participants to share the results and see whether they agree with them (Thomas et al., 2005). In this study the participants were given the transcripts and asked to review them for accuracy, send any changes back, clarify statements, add anything that may be missing, and returned a signed transcript release form. Participants were also given the conclusions of the study in order to further validate the findings.

The fourth concept that can be used in qualitative research in order to ensure quality is confirmability. Confirmability deals with the issue of researcher bias and addresses whether another individual can place faith in the results (Thomas et al., 2005). In this study, confirmability was addressed through investigator triangulation. As indicated earlier, two independent researchers read the transcripts and viewed the charts in order to confirm analysis and categorization of factors into one of the ecological categories. Discrepancies were discussed until a classification agreement was reached.

One final technique in establishing trustworthiness in qualitative research is the reflexive journal (Lincoln & Guba, 1985). This technique has broad-ranging application to all four areas (i.e., credibility, transferability, dependability, and confirmability) and provides a base for a number of decisions a researcher must make (Lincoln & Guba, 1985). A reflexive journal is a diary in which the researcher records a variety of
information as needed (Lincoln & Guba, 1985). I used my reflexive journal to record logistics, my personal reflections, and my methodological decisions.
CHAPTER 3

3.0 RESULTS

The purpose of this study was to provide insight into the factors involved in the intention to enroll in elective physical education among adolescents. The ecological model (McLeroy et al., 1988) was used to structure focus group questions in order to uncover both personal and social environmental factors influencing enrollment intention. Homogenous focus groups were assembled based on school, gender, and intention. In the focus group interviews, female and male participants not intending to enroll in grade 11 physical education were asked questions regarding perceived barriers; factors that may have prevented their enrollment intention. Participants intending to enroll in grade 11 physical education were asked questions regarding perceived facilitators; factors that may have promoted their enrollment intention.

The factors revealed by the participants were organized using the four ecological categories. The results of the focus group discussions are presented by gender (i.e., female/male), factor (i.e., barrier/facilitator), and ecological category (i.e., intrapersonal, interpersonal, institutional, and community). One of the objectives of this study was to compare perceived factors influencing enrollment intention between schools with high and low enrollment. Therefore, comparisons of perceived factors between schools (i.e., high enrollment/low enrollment) are also presented highlighting the similarities and differences.

In addition, within each section, participants are described using the information from the demographics questionnaire and the IPAQ (see appendix J). The goal of these
descriptions was to give a detailed portrayal of the participants in attempt to provide the reader with information to better understand the findings (Morse & Richards, 2002).

3.1 Barriers to Enrollment Among Female Adolescents

Female adolescents who were not intending to enroll in grade 11 physical education were asked questions regarding the barriers. Sixty-three female and male grade 10 students participated in this study. Among the 63 students, 10 students were females who did not intend to enroll in elective physical education. Of these 10 female participants, 4 participants were from the high enrollment school. These 4 female participants were Caucasian and their overall grade 9 academic averages ranged from 64% - 89%, with a mean academic average of 76.4%. According to the IPAQ, 2 participants were considered highly active, 1 participant was moderately active, and 1 participant had a low activity level. None of these 4 female participants participated on a school sports team or a community sports team. When participants were asked if they participated in physical activity where practice and/or competition was mandatory other than on a sports team (i.e., martial arts, dance) only 1 reported that she did participate in physical activity other than a sports team.

Among the 10 female participants who were not intending to enroll in physical education, 6 participants were from the low enrollment school. Of these 6 participants, 3 participants were Caucasian, 2 participants were Asian, and 1 participant identified herself as ‘other’. The female participants at the low enrollment school had higher overall grade 9 academic averages than the participants at the high enrollment school, ranging from 87% - 95%, with a mean average of 91%. According to the IPAQ, of the female participants at the low enrollment school 1 participant was considered highly active, 4
participants were moderately active, and 1 participant had a low activity level. Unlike the high enrollment school, where no females participated on school sport teams, in the low enrollment school, 5 of the 6 females were members of school sports teams. However, similar to the high enrollment school, the majority of female participants, 5 of 6, were not involved in community sports. When participants at the low enrollment school were asked if they participated in physical activity other than sport teams, 5 of the 6 female students reported they were involved in other activities.

The young women in this study who were not intending to enroll in grade 11 physical education reported several barriers to their enrollment intention. These barriers were present across all four ecological categories. Many similarities existed between reported barriers among the female participants in the high enrollment and low enrollment schools at all four ecological levels. However, one difference was present in the intrapersonal ecological category and prominent differences emerged at the institutional ecological category.

3.1.1 Intrapersonal Barriers

“I didn’t like it (previous gym classes) because, no offence to the teachers and stuff, but they didn’t really know how to teach the skills...grade 6, 7, and 8 was all the same things just over and over again. Every year we did volleyball, basketball and the same sports every year, so I think we repeated everything too much and we didn’t learn anything new or any new skills for the same sports so our level is the same I don’t like the repetition. Also there was some really good people and they always seemed to get everything and I am not really good at things like track and field and then it wasn’t very fun.” (LS-5-5)

When interviewing the young women at both the high and low enrollment schools, it became very clear that their past physical education experiences were influencing their intention not to enroll in grade 11 physical education. Participants revealed that their previous experiences in elementary and middle years physical
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education was a prevalent intrapersonal barrier to their intention to enroll in elective physical education. It was apparent that the dislike of physical education had been developing over several years as female participants described their negative experiences in their previous physical education classes. They frequently expressed dissatisfaction about the repetitiveness of the course content and their frustration with their teachers’ lack of knowledge in the activities within the physical education curriculum.

As well, the young women felt that their teachers and other classmates favored the students who were more athletic and more successful in physical education. The favored students in most cases were their male classmates. As grade 11 physical education was co-educational, female participants thought back to their past experiences in co-educational classes when making their enrollment choice. The young women discussed their past experiences in co-educational physical education as negative. Female participants had a preference for gender segregated classes and did not enjoy the co-educational structure of past physical education classes. Specifically, the young women felt their male classmates dominated activities and created a competitive environment where they could not be themselves.

It was clear the negative past experiences with male classmates were barriers to the enrollment intention of the young women within this study at both the high and low enrollment schools. The following statements emphasize the lack of enjoyment in co-educational physical education:

“*In elementary school there was a lot of dodgeball and the guys they would like throw really hard. I think it is just easier to be more sure of yourself if there is just other people who are the same level and skills as you are I guess*” (LS-1-1)
In addition to the intrapersonal barrier of past physical education experiences, female participants revealed that their lack of self-confidence in physical activity and within physical education settings was a barrier to their enrollment intention. When discussing physical activity it was apparent the young women not intending to enroll in physical education lacked confidence in their physical abilities. This lack of self-confidence resulted in female students being reluctant to participate in physical activities in front of others. The young women explained that they did not feel confident in the activities within the physical education course, particularly team sports, and therefore did not want to participate in the activities they were ‘not good at’ in front of their peers. Further, this lack of self-confidence in physical activity resulted in the desire to be physically active alone. The young women within this study had a strong preference to participate in activities on their own in the absence of their classmates. This was expressed in one participant’s comment:

“I prefer to do physical activity by myself or with a friend. Like going swimming or I would rather run on a machine than actually run on the ground. I feel more comfortable running on a machine than running around the block or something where people don’t watch you” (HS-18-4)

When given a choice, the grade 11 physical education class was not at the forefront of elective courses among the young women in this study not intending to enroll in grade 11 physical education. The students explained that physical education was not a priority among elective classes being offered and they planned to enroll in other elective courses instead of physical education. Some of these electives included French, band, choir, and photography. In addition to other preferred elective courses, participants discussed the difficulty of finding room for physical education in their class schedule due to the required courses needed for post-secondary education. However, when asked if
they would enroll if they were able to fit physical education in their class schedule, most of these young women stated that they would still not enroll. Participants also expressed they would prefer to take a spare instead of enrolling in grade 11 physical education. This suggests that even if the students were able to fit physical education into their course schedule they would not choose to enroll:

“I am mostly just trying to get what I need and then band and choir so I want to kinda take more like instrumentals courses.” (LS-5-3)

3.1.2 Interpersonal Barriers

“My friends aren’t enrolling...if all my friends were enrolling for sure I would probably consider it more yeah.” (HS-18-2)

The interpersonal barriers reported by the young women in this study were common among participants at the high and low enrollment schools. The influence of friends was a prominent interpersonal barrier to enrollment intention among female students. Participants explained that since their close friends were not intending to enroll in physical education they did not want to enroll. They explained that since they were not confident participating in physical activity in front of others they described that they would feel more comfortable if their friends were in the class with them. All of the young women stated that if their close friends were enrolling in grade 11 physical education they would also consider enrolling.

In addition, parental influence was discussed as an interpersonal barrier to enrollment intention. Participants explained that their parents supported their intention not to enroll in physical education. They described that their parents felt physical education was not a priority in comparison to other classes. It was apparent that the
parents of these students were encouraging enrollment in other more ‘useful’
academically focused classes that were required for post-secondary education:

“They (parents) care more about school and education then phys. ed.” (HS-18-1)

“I wanted to go into Kinesiology in university and they (parents) didn’t want me
to so I couldn’t take it (grade 11 physical education) because it’s not big on their
priorities...they are pushing me towards something more academically focused
like a doctor or a lawyer.” (LS-5-2)

The young women at both the high and low enrollment schools explained that the
types of students who were intending to enroll in grade 11 physical education was a
barrier to their enrollment intention. When asked to describe these students the young
women described them as athletic, naturally skinny, fit, overachievers, and people who
were good at everything especially sports. One participant resentfully described these
people with the following statement:

“People that can run for 12 minutes and they just keep running for longer,
and try as hard as they can, people who are always winning sports”(LS-5-1)

As discussed earlier, the young women not intending to enroll had negative past
experiences with students who were more athletic and more successful in physical
education classes than themselves. They felt self-conscious participating in activity in
front of the ‘types’ of students intending to enroll, as they did not perceive themselves as
highly skilled in the activities within the physical education course. The female
participants wanted to avoid being judged by students with high physical ability and did
not want to be in the same physical activity setting as these types of students. Further, the
young women said they preferred being segregated from their male classmates in
physical education classes. They felt more comfortable in classes that were all female
(i.e. Wellness 10) and would prefer grade 11 physical education to be gender segregated.
The female participants explained that the male students would dominated the class, increase the competition, and make the class less enjoyable:

“*It’s basically like guys are trying to beat you in every single way like when you are running or playing softball or who can run the longest or who can get most people down and it’s just not fun.*” (HS-18-1)

### 3.1.3 Institutional Barriers

It became apparent that the lack of desire to enroll in physical education was a result of the perceptions female participants had of the grade 11 physical education course. The young women at both the high and low enrollment schools stated the physical education curriculum was inhibiting their enrollment. As well, the females at the high and low enrollment schools discussed different reasons for their dislike of the curriculum. Female participants at the high enrollment school described themselves as non-competitive people and associated competition with physical education classes. These young women frequently commented that they preferred a non-competitive physical education environment. Further, the female participants at the high enrollment school also found little value and use for the grade 11 physical education curriculum. They described that they did not know where they would use the information gained from the course and felt the course was only useful to provide them an opportunity to play sports:

“*It’s just like I don’t know what I would use it for like what I learned I don’t know what I would use it for.*” (HS-18-2)

“I think the only thing really good about physical education is if you really suck at basketball and volleyball and you don’t have the skill to join the team and then I can go to gym and am able to play that game with a whole bunch of people.” (HS-18-3)
In addition, the young women at the high enrollment school specifically discussed two activities within the curriculum that were inhibiting their enrollment intention. They reported the course was primarily composed of team sports and running. As discussed previously, female participants indicated an intrapersonal barrier to enrollment was their dislike for team sports. Thus, the content of grade 11 physical education was a barrier to their enrollment. The lack of value and dislike of course content was evident in the following examples:

“When I think phys. ed. the thing that comes to mind is running cause all I have done is basically running so I don’t enjoy running so I don’t enjoy gym or thinking about running in gym or running for a long period of time” (HS-18-1)

“I don’t really like sports that is why I am not joining.” (HS-18-2)

The female students at the low enrollment school also expressed their dislike for the grade 11 physical education curriculum. They explained they did not enjoy trying new activities, as they were not highly confident in their physical abilities. Since the grade 11 physical education curriculum had activities they have never tried before, the curriculum was a barrier to enrollment intention. The young women at the low enrollment school revealed that they would have preferred grade 11 physical education curriculum to be similar to grade 10 physical education curriculum because they would have previous experience with the activities within the course.

“If there was another option that was like the gym we had now I would take it. I kinda like the whole repetitive over and over sports cause it allows you to build on the skills of those sports” (LS-5-1)
3.1.4 Community Barriers

“I think our community has lots of good places where you can be active. Like you can go to the river and stuff...you can do it on your own time.” (HS-18-1)

The young women at both the high and low enrollment schools reported the same community barriers to their enrollment intention. Female participants explained that the community provided them with a sense of choice and control. The desire to have a wide variety of activities to choose from and the sense of control the community provided around the physical activity setting resulted in the female participants preferring to be active within their community. The female students explained that their community facilities allowed them to choose the activities they participated in (i.e., work out at community fitness center, aerobics classes), choose the time of day they wanted to be active, and choose the people they wanted to be active with. As previously stated, female participants preferred to participate in physical activity on their own and in the absence of others. Being active in the community instead of physical education class would address the intrapersonal barrier of being self-conscious participating in front of others, the interpersonal barrier of being active in front of certain ‘types’ of students, and the institutional barrier of participating in activities they did not enjoy. They described that their community provided numerous places to be active in a setting, where they felt more comfortable in comparison to a physical education class. The young women explained that if they wanted to be active they would choose to be active within their community as opposed to choosing to be active in a physical education class. Therefore the community was a barrier to enrollment among female adolescents not intending to enroll:

“Its better to do it on your own time cause if you do it on your own time you actually probably want to be active instead of having like a set time in the day where you probably wouldn’t want to be active like just then.” (HS-18-4)
3.2 Facilitators to Enrollment Among Female Adolescents

Female adolescents who were intending to enroll in grade 11 physical education were asked questions about the factors that promoted their enrollment intention. Within this study, 14 females participants were intending to enroll in elective physical education. Of these 14 female participants, 4 participants were from the highest enrollment school. Among the 4 females, 3 females were Caucasian and 1 female identified herself as ‘other’. Their overall grade 9 academic averages ranged from 78% - 86.8%, with a mean average of 82.9%. According to the IPAQ, 3 participants were considered highly active, 1 participant was moderately active, and no participants had low activity levels. The demographics questionnaire provided information on sport team participation within the school and within the community. Among the 4 young women at the high enrollment school, 3 participated on school and community sports teams and 1 did not participate on either school or community sport teams. In addition, 3 participants revealed they were involved in physical activity other than on school or community sport teams.

Ten of the 14 female participants who were intending to enroll in physical education were from the low enrollment school. These young women were all Caucasian and their overall grade 9 academic averages ranged from 75% - 94.8%, with a mean average of 88%. Consistent with the female students not intending to enroll, the females who were intending to enroll at the low enrollment school had a higher academic average than the females at the high enrollment school. According to the IPAQ, 7 females were considered highly active, 3 females were moderately active, and no participants had low activity levels. Seven of the 10 young women were involved on school and community sport teams. In addition, at the low enrollment school, 4 participants were involved in
physical activity other than on sport teams, such as dance or martial arts, and 6 participants were not.

The young women intending to enroll in elective physical education at both the high and low enrollment schools reported similar facilitating factors across all four ecological categories. Some differences did exist between reported facilitators in the high and low enrollment schools within the intrapersonal and interpersonal categories, however, there were more similarities than differences.

3.2.1 Intrapersonal Facilitators

“The more active I am the better I feel. The more activity I get in the day the better I feel at night. I don’t like to feel gross and like out of shape or anything.” (HS-10-4)

Female participants with an intention to enroll in grade 11 elective physical education revealed several intrapersonal factors influencing their intention. In the focus group interviews, participants at the high and low enrollment schools emphasized the enjoyment of physical activity and being physically active as much and often as possible. The young women described that it would feel unusual if they did not enroll in physical education and that physical education keeps them active and fit. In addition, female participants discussed that they enjoyed sports and had always been involved in sports. As these participants had always been involved in activity, they expressed that not being active, including enrolling in physical education class, would feel ‘weird’:

“I think I have always really liked sports, even if I’m not playing I like to go watch other people playing sports and I’m just an extremely busy person so for me not to be doing something would just feel weird almost” (LS-2-3)

The enjoyment of trying new physical activities that are challenging emerged as facilitating factors among the young women throughout the focus group interviews. They
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knew the grade 11 physical education course had new activities and this challenge of attempting new activities facilitated their enrollment:

“I think it would be fun to learn about other things, like other sports that I wouldn’t normally try, I like the challenge of that” (HS-10-2)

In addition to these similarities, female participants at the high and low enrollment schools revealed two distinct intrapersonal facilitators. The young women at the low enrollment school explained that their busy schedule did not allow them to be physically active as much as they would prefer. Therefore, enrolling in physical education would provide them with physical activity. In contrast, the young women at the high enrollment school revealed that their confidence in sports, physical activity in general, and in physical education was promoting their enrollment intention. Female participants at the high enrollment school were not concerned with other students’ perception of their abilities and were more interested in having fun in the activities within the course. One participant described her confidence in trying new activities:

“If there is a sport I am not good at or never tried I don’t really care I just go out and have fun. I don’t really care what people think of me as long as I am having fun doing it” (HS-10-3)

Female students intending to enroll in physical education at both the high and low enrollment schools discussed the importance of fitting the courses needed for their post-secondary education plans and the elective classes they wanted to take into their course schedule. They explained that after fitting in the required courses for post-secondary education into their class schedule they still had room to take physical education. In this study young women intending to enroll also discussed that of all the elective courses their school offered, physical education was one of their top elective choices:
3.2.2 Interpersonal Facilitators

“I played basketball and so I know a lot of the grade 12’s …. and they were in SPED (grade 11 physical education) and I just sort of liked what they did and they kind of told me what their experience was with it and I thought it would be a good thing for me to do” (LS-2-1).

The young women within this study who were intending to enroll in elective physical education described the positive influence of others on their enrollment intention. Female participants explained that discussing the course with people who had previously taken the course and enjoyed the course influenced their intention to enroll. One participant described that she heard about grade 11 physical education through her friends:

“Since we are active people we are probably friends with other active people so, we are influenced by them, we hear about it, we hear about it from our friends and if you are in a group of people that don’t like sports they wouldn’t really talk about SPED (grade 11 physical education) about going into it so, then you wouldn’t hear about it. (LS-2-2)

However, differences were present among interpersonal facilitators reported by the female students in the high and low enrollment schools. At the low enrollment school the participants discussed that being a member of a school sports team promoted their enrollment in elective physical education. These young women reported that their teammates and in-school coach influenced their enrollment in elective physical education. They explained that since their teammates who had previously taken the course encouraged them to enroll.

In addition, all of the participants reported that their parents supported their intention to enroll in physical education. Many of the young women commented that their
parents were assuming they were taking physical education and would be surprised if they did not enroll. This assumption was due to their past participation in physical activity and past experiences in physical education classes. Female students described that they have always been active, had constantly been involved in sports, and had always enjoyed physical activity. They further communicated their enjoyment and success in previous physical education classes. The young women explained their parents were encouraging enrollment in grade 11 physical education because their parents knew they would enjoy the class:

“I think they are assuming I am taking it, I think they would think it is weird if I didn’t” (HS-10-1)

“It was an assumption that I was going to because I like to be active so I think my parents were assuming that I was going to do that anyway” (LS-2-4)

3.2.3 Institutional Facilitators

Institutional facilitators noted by female participants intending to enroll in physical education included: a break from classes, not a lot of homework in physical education, and the physical education curriculum. Female participants expressed they wanted physical education to be part of their day, as they needed a break from sitting in their other classes, and they wanted an opportunity to learn new activities and they wanted to be physically active within the school day. Participants enjoyed that physical education did not have a lot of homework, as they were busy participating on school and community sport teams. The young women also discussed they would enjoy the new activities the course would provide. They indicated that they enjoyed trying new activities and looked forward to the challenge. The following comments described the participants’ institutional facilitators:
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“It (grade 11 physical education) gives you an opportunity to do other sports that you haven’t done before, so like I played on two basketball teams but in SPED (grade 11 physical education) you would be doing other sports that you haven’t had a chance to ever try before.” (LS-2-3)

“Yeah, it gives you a break from everything else and then you’re able to go away and do something that you enjoy.” (LS-2-4)

3.2.4 Community Facilitators

Female participants with an intention to enroll at both the high and low enrollment schools indicated that their community was a facilitator to their enrollment intention. The young women explained that being active in their community facilitated their enrollment intention by increasing their desire to try the new activities within the grade 11 physical education curriculum. They discussed that the physical education course would provide them with other types of activities that they did not participate in within their community. For example, many of the participants were involved in team sports within their community; however, the physical education curriculum would provide them an opportunity to try activities they felt they were unable to participate in within their community (i.e., scuba diving). Further, participants felt that being active within the community increased their desire to be more active in other settings including physical education:

“Well I think the activities were what made me want to enroll. Just because it gives you an opportunity to do other sports that you haven’t done before, so like I played on two community basketball teams but in SPED (grade 11 physical education) you would be doing other sports that you haven’t had a chance to ever try before.” (LS-2-1)

3.3. Barriers to Enrollment Among Male Adolescents

In the focus group interviews, male participants not intending to enroll in grade 11 physical education were asked questions regarding perceived barriers, which may have
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prevented their enrollment intention. Within this study 11 participants were males who did not intend to enroll in elective physical education. Of these 11 male participants, 4 participants were from the high enrollment school. These 4 young men were Caucasian and their overall grade 9 academic averages ranged from 66% - 90%, with a mean academic average of 79.7%. According to the IPAQ, 3 participants were considered highly active, 1 participant was moderately active, and no participants had low activity levels. The demographics questionnaire revealed that of the 4 male participants at the high enrollment school, 3 individuals did not participate on a school sports team and 1 individual did participate on a school sports team. In addition, 2 of the 4 young men participated on a community sports team. Further, when the male participants at the high enrollment school were asked if they participated in physical activity other than team sports, 2 male participants said they were involved and 2 male participants said they were not involved in activity other than on team sports.

Among the 11 young men not intending to enroll in physical education, 7 participants were from the low enrollment school. Of these 7 participants, 5 participants were Caucasian, 1 participant was Asian, and 1 participant identified himself as ‘other’. These 7 male students had a higher overall academic average than the male participants at the high enrollment school; their grade 9 academic averages ranged from 58% - 92%, with a mean average of 85.7%. According to the IPAQ, 5 males were considered highly active, 2 males were moderately active, and no participants had a low activity level. At the low enrollment school, 4 of the 7 students participated on a school sports team and 3 did not. Further, of these 7 participants, 5 participants participated on a community sports
team. In addition, 3 of the young men indicated they were involved in physical activity other than sports teams and 4 indicated they were not.

Barriers to enrollment among male adolescents intending not to enroll were present at the intrapersonal, interpersonal, and institutional ecological levels. The majority of barriers reported by this group of participants existed at the institutional level. Some similarities and differences were present in reported barriers among male participants between the high enrollment school and the low enrollment school. Similarities in reported barriers among male adolescents at both the high and low enrollment schools were noticeable within the interpersonal and institutional ecological categories. Differences were present at the intrapersonal and institutional ecological levels.

3.3.1 Intrapersonal Barriers

“I just think I have preferences for other things other than gym...well like mechanics and cars are a big part of my life and I value that more” (LS-3-2)

One of the most prominent barriers that arose among all male participants not intending to enroll in elective physical education was perceived scheduling conflicts. All of the young men not intending to enroll in physical education stated they could not fit physical education into their class schedule. This scheduling conflict was attributed to required courses and preferences for other elective classes. It was evident that male students not intending to enroll did not consider physical education to be useful to their future. They frequently discussed the need to take ‘academic’ classes necessary for their post-secondary education. These courses included upper level math and science classes. The young men also revealed their desire to take other elective classes such as: mechanics, photography, and welding, which they believed would be more important to
their futures. Although these participants explained that they could not find room in their schedule for physical education, they also revealed they would rather take a spare than enroll in physical education.

The young men at the high and low enrollment schools also reported different intrapersonal barriers to their enrollment intention. The dislike of sports, in particular team sports, was a barrier to enrollment among male students at the high enrollment school. They expressed that they enjoy physical activity, however they did not like participating in team sports.

The male participants intending not to enroll in elective physical education at the low enrollment school indicated that their lack of knowledge regarding the grade 11 physical education program was a barrier to their intention to enroll. The young men were unaware and uninformed about the grade 11 physical education course. When they were asked to describe the course in the focus group interviews, the majority of male participants at the low enrollment school had little knowledge about the course and its contents. The male students stated that their physical education teacher did not talk about the course with them and they had not discussed the course with their friends or students who had previously taken the class. They suggested that if they knew more about the course or had talked to people who had previously taken the course they may have been influenced to enroll:

“I don't really know what it (grade 11 physical education) is.” (LS-3-1)

In addition to a lack of knowledge, male participants at the low enrollment school revealed they did not like to be active during school hours. They explained that while they enjoyed being physically active, they did not like getting tired during the school day
and then having to attend their other classes. A unique barrier among the young men at the low enrollment school was the preference to be active outside of the school day. Participants at the low enrollment school discussed that they were already active outside of school and therefore did not need to be active within school hours. The IPAQ, given to the participants prior to the focus group interviews, supported this and showed that all male participants not intending to enroll were active outside of school hours. Of the 7 young men not intending to enroll in elective physical education 5 were highly active and 2 were moderately active.

“It’s just that I don't want to get tired during school because there are other things.....like other classes, I get really out of breath in gym and then have to write an English essay or something that wouldn't really be that great” (LS-3-4)

3.3.2 Interpersonal Barriers

“My parents want me to do all academics stuff” (LS-3-1)

At both the high and low enrollment schools the male students not intending to enroll in elective physical education reported only one interpersonal barrier to their enrollment intention. The young men at the high and low enrollment schools stated that the only people who influenced their enrollment intention were their parents. All of the young men discussed that their parents discouraged them from enrolling in elective physical education and encouraged them to take other required courses, as they felt they were more important to their future. They explained that their parents believed the purpose of physical education was to be physically active and since they were physically active outside of school their parents felt they did not need to enroll in physical education. The IPAQ confirmed the male participants were physically active outside of school, revealing that of the 11 male participants not intending to enroll within this study,
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8 were considered highly active and 3 were moderately active. In addition, 7 of the 11 young men were involved in sports at their school and within their community. Male participants expressed their parents supported their intention not to enroll in physical education because they were already active:

“My parent said that I don't have to take phys. ed. as long as I stay active out of school” (LS-3-2)

3.3.3. Institutional Barriers

Distinct differences in institutional barriers among male adolescents were reported between the high and low enrollment schools. Male participants at the high enrollment school discussed their dislike for sports, in particular team sports. This was a barrier to enrollment as they perceived the majority of the grade 11 physical education course consists of team sports:

“I’d say the reason why I don’t want to take phys. ed. is I really don’t like the sports that we do and it’s just kind of all team sports I don’t like.” (MS-17-2)

The young men at the low enrollment school did not like the way the grade 11 physical education course was scheduled. Specifically, they did not like to leave the school and did not like the course going over lunch hour as they had other activities, such as driver education and debate club during that time:

“Because I do a lot of other activities at lunch. A bunch of times I go to debate meetings at lunch and missing a lot of those is not great. When I was taking drivers ed. I had to miss every single lunch hour for a month and a half.” (LS-3-4)

3.4 Facilitators to Enrollment Among Male Adolescents

Within the present study, 28 participants were young men who intended to enroll in elective physical education. Of these 28 individuals, 14 individuals were from the high enrollment school. Among these 14 individuals, 13 individuals were Caucasian and 1
individual identified himself as ‘other’. The male students at the high enrollment school had overall grade 9 academic averages ranging from 69% - 92%, with a mean average of 84.6%. According to the IPAQ, 12 participants were considered highly active, 2 participants were moderately active, and no participants had low activity levels. At the high enrollment school, 10 of the 14 young men were involved in school sports. In addition, 9 males were involved in community sports and 5 males were not involved in community sports. Further, 7 participants were involved in physical activity other than sports teams (e.g., martial arts), 6 participants were not involved, and 1 participant did not answer the question.

Five of the 28 male participants who were intending to enroll in physical education were from the school with the second highest enrollment. Among these 5 male participants, 4 participants were Caucasian and 1 participant did not answer the question. The young men had overall grade 9 academic averages ranging from 80% - 90.1%, with a mean of 86.2%. According to the IPAQ, 3 males were considered highly active, 1 moderately active, and 1 male participant had a low activity level. At the school with the second highest enrollment, 4 of the male students were involved in school sports and all 5 participants were involved in community sports. In addition, 2 students were involved in physical activity other than sports teams and 3 students were not.

Among the 28 male participants intending to enroll in physical education, 9 participants were from the low enrollment school. Of these 9 young men, 6 young men were Caucasian and 3 young men were Chinese. Similar to the two high enrollment schools, these 9 males had overall grade 9 academic averages ranging from 75% - 92%, with a mean average of 84.6%. According to the IPAQ, 6 participants were considered
highly active, 3 participants were moderately active, and no participants had low activity level. At the low enrollment school only 4 of the 9 young men were involved in school sports. However, 7 of the 9 students were involved in community sports. In addition, 4 students participated in physical activity other than sport teams and 5 did not.

The male students with an intention to enroll in grade 11 physical education showed similarities among the factors facilitating their enrollment between the high and low enrollment schools. The similarities in facilitators among the young men were present across all four ecological categories. Few differences existed between the male participants in the high enrollment and the low enrollment schools.

3.4.1 Intrapersonal Facilitators

“I find that gym comes easy to me. Like some people struggle with it and find it challenging and I find it easy and its fun and I can stay active.” (MS-15-3)

Male adolescents who intended to enroll in elective physical education described several intrapersonal factors facilitating their enrollment intention. Within both the high and low enrollment schools, the young men explained that their past experiences with physical activity and physical education facilitated their enrollment intention. The male students who intended to take physical education were confident in physical activity settings, had positive past physical education experiences, and had previously succeeded in physical education courses. The young men stated they were enrolling in physical education because their past experiences in their previous physical education courses were positive:

“I really like sports and gym is my highest mark so I don’t know why I wouldn’t go in it. Brings up your average if you enjoy it” (HS-7-2)
In addition to their successful past experiences in physical activity and physical education settings, the young men intending to enroll at the high and low enrollment schools described their love for sports, trying new challenging physical activities, their overall enjoyment of physical education and their belief that physical education made the school day more fun:

“I like trying new things, and SPED because the majority of it is trying new things” (HS-7-2)

“I like the challenge, I’m competitive” (HS-7-1)

### 3.4.2 Interpersonal Facilitators

“When I found out through my sister about SPED (grade 11 physical education) and I told my dad I wanted to take it and he said he thinks that’s a good decision because he is really into physical activity and he thinks it’s important” (HS-7-3)

The male students with an intention to enroll discussed several interpersonal facilitators that encouraged their enrollment. Distinct differences existed in the reported facilitators among the male participants in the high and low enrollment schools. However, two prominent facilitators emerged throughout the focus group interviews among all the young men within this study. The young men intending to enroll in physical education consistently communicated the influence of their parents on their enrollment intention. It was clear that the parents of the male participants who intended to enroll encouraged their sons to enroll in elective physical education. The young men were aware that their parents supported their intention to enroll in physical education. They frequently expressed that their parents valued physical activity and believed that physical education was an important course.
In addition, friends and siblings of the participants, who had previously taken the course, promoted enrollment by informing them that they enjoyed the course and encouraged them to enroll:

“I got a few friends in grade 11 physical education and they just say they really enjoy it so I know that kinda makes me think that it is probably worth it” (LS-4-2)

Two distinct interpersonal facilitators also emerged among male participants at the high and low enrollment schools. An interpersonal facilitator among male adolescents in the high enrollment school was the influence of their physical education teachers. Participants explained that their physical education teachers took time out of their grade 10 physical education course to discuss the grade 11 physical education course with them. This provided the young men with knowledge of the course, its structure, and its contents. They explained that the information provided by their physical education teachers facilitated their enrollment intention. One participant described the influence of his physical education teacher:

“My teacher took that one day out to tell us about how much we would enjoy SPED (grade 11 physical education)” (HS-7-1)

In addition, male participants’ at the low enrollment school reported that in-school coaches encouraged their enrollment in elective physical education. The young men revealed that their football coach, who was also a physical education teacher, suggested they should enroll and told them that they would enjoy the class.

3.4.3 Institutional Facilitators

“I think it will definitely help you later on...it can make you more enthusiastic and less lazy and maybe for a job later on in life it will make you more motivated for stuff in all aspects of your life. And you will also have the experience of doing those things and you might want to go back and do them” (HS-7-4)
Institutional facilitators among male adolescents with an intention to enroll focused around the physical education course curriculum. All male participants liked the course curriculum and found the course valuable and useful to their future. They believed the course was important as the course provided them with experience in activities they may want to participate in as adults. All of the male participants intending to enroll also enjoyed team sports, the activities in their grade 10 physical education class, and were looking forward to the new activities the in grade 11 physical education course. Participants commented that they were excited to participate in the new activities within the course that they have never tried before, such as scuba diving and wall climbing.

The young men also explained that they were looking forward to the break that physical education would provide from their other classes. They indicated that they did not like sitting for the entire school day and enrolling in physical education would provide activity within their school day. Further, male students explained they would enjoy the structure of the physical education course as it would allow them to leave the school and would break up their regular class routine.

“It’s just a lot different than other classes than just coming into a class, sit down, do the same thing, same routing everyday, this is different, you go on a bus, check out different places” (HS-7-1)

3.4.4 Community Facilitators

Male adolescents intending to enroll in elective physical education indicated that they were active within their community. Supporting this, the demographics questionnaire revealed that 21 of the 28 male participants intending to enroll in elective physical education were active within their community. The young men explained that being active in their community promoted their enrollment. As they were aware of the
activities available in their community, they felt the activities in their community were not the same as the activities they would experience in physical education. Therefore, male participants expressed that in order to experience these different activities they must enroll in elective physical education. A student explained:

“Some of the stuff you can’t do in your community. So some of the activities that you can’t do in your community you can do in SPED. Not everyone goes out scuba diving as a hobby” (HS-7-2)
CHAPTER 4

4.0 DISCUSSION

Using a qualitative ecological framework, the present study identified a wide range of factors influencing enrollment intention in elective physical education. Within this discussion, the factors influencing enrollment intention identified by participants will be discussed. The discussion of the barriers and facilitators will be presented by ecological category. Although the ecological categories overlapped somewhat, each category will be presented separately to fully explicate the findings and describe the factors within each ecological category.

One objective of this study was to compare factors reported by the participants within schools with high and low enrollment in grade 11 physical education. However, differences were minimal. Differences were more prominent between gender and intention. These differences between females and males and between participants who were intending to enroll and participants who were not intending to enroll had consistent overarching themes. These themes will be discussed in the proceeding sections.

4.1 Intrapersonal Factors

In the present study, female and male participants discussed several intrapersonal factors that influenced enrollment in elective physical education. The participants at both the high and low enrollment schools reported several factors about themselves that were inhibiting and promoting their enrollment intention. Although the young men and women discussed several intrapersonal factors within this study, four themes encompassed the intrapersonal factors described by the participants. The four intrapersonal themes that
emerged from this study were: past physical education experiences, self-efficacy in physical abilities, scheduling, and knowledge of the grade 11 physical education course.

4.1.1 Past Experiences

The influence of past experiences in previous physical education classes was a frequently reported intrapersonal factor. Past physical education experiences of the participants resulted in positive or negative attitudes towards physical education. These attitudes were directly related to enrollment intention in physical education within this study. All the participants, with the exception of the male students not intending to enroll, discussed their past experiences in physical education classes as either a barrier or a facilitator to their enrollment intention. The young women who were not intending to enroll at both the high and low enrollment schools explained that their past experience in physical education classes was a barrier to their enrollment intention. In addition, female and male participants intending to enroll in grade 11 physical education discussed past physical education experiences as a prominent intrapersonal facilitator to their intention to enroll. Therefore, students’ experiences in previous physical education classes was a critical factor influencing enrollment in physical education when it becomes an option.

It has been shown that young women who have previously experienced negative encounters with physical education choose to opt out when given a choice (Gibbons et al., 1999). The young women the present study revealed two factors regarding their past physical education experiences that were inhibiting their participation in physical education: (1) the co-educational structure of past physical education classes and (2) the dislike of past physical education course curriculums. These factors all contributed to the development of negative attitudes towards physical education among female participants.
Literature has revealed this attitude toward physical education has developed well before students’ final years of school, starting in elementary school and continuing through high school (Gibbons & Gaul, 2004; Humbert, 1995). As grade 11 physical education is co-educational, females began discussing their past experiences with their male classmates. In this study, the grade 9 and 10 physical education classes within the participating schools were gender segregated. Therefore, when participants described their past experiences with male classmates, participants were thinking back to their elementary physical education classes. The young women explained that their past experiences in co-educational physical education created an environment in which female participants described as ‘being no fun’ and resulted in male classmates putting a great deal of emphasis on competition. Ennis (1999) and Satina et al. (1998) affirmed that male dominance in physical activity contributed to female’s lack of participation in physical education. Further, there is evidence that male domination in physical education classes can result in feelings of inferiority and characterization of female students’ experiences as meaningless, powerless, and marginalized (Azzarito, 2006; Satina et al, 1998). This was a barrier to enrollment among female participants as physical education becomes co-educational in grade 11. Discussions with the young women in this study and previous research supports that female students prefer to be segregated from their male classmates in physical educational settings (Fraser-Thomas & Beaudoin, 2004; Gibbons et al., 1999; Humbert, 1995).

In addition to the negative past physical education experiences with male classmates, it has been shown that female adolescents find physical education content to be primarily sport-based and repetitive (Gibbons et al., 1999). Literature has supported
that females perceive physical education to be largely composed of team sports and the activities within the curriculum to be repetitive (Gibbons, et al., 1999; Humbert, 1995, Fraser-Thomas & Beaudoin, 2004). This is generally not meaningful or motivating to female students (Fraser-Thomas & Beaudoin, 2004; Gibbons, et al., 1999; Humbert, 1995). A number of researchers suggest that physical education content for females should include a more diverse choice of physical activities beyond the traditional sport focus (Brown, 2000, Park & Wright, 2000; and Schofield et al., 2002). Therefore, including individual focused activities in contrast to team sports may be more meaningful to female students (Brown, 2000).

Past physical education experiences was also a consistently discussed intrapersonal facilitator among female and male participants at the high and low enrollment schools. When interviewing the participants intending to enroll in elective physical education it became very clear that their past physical education experiences were positive. The young men and women described their enjoyment of physical activity and past physical education classes, specifically the enjoyment of competition and team sports. Most literature examining factors that influence physical activity and physical education participation have found these particular intrapersonal factors to be reported by male adolescents (Couturier, Chepko, & Coughlin, 2007; Tergerson & King, 2002). For example, studies have consistently and persistently indicated that male adolescents enjoy physical activity, are more confident in physical activity settings, and have a more positive attitude towards physical education than females (Couturier et al., 2007). Literature states that more male adolescents, when compared to female adolescents, prefer team sports and competitive environments (Couturier et al., 2007). Although the
majority of research has shown that male adolescents enjoy physical education more than female adolescents, a study conducted by Barr-Anderson and colleagues (2008) found that 77% of females enjoyed physical education. This finding was consistent with the female participants who were intending to enroll within this study, as they indicated they have enjoyed their past physical education classes.

In sum, female and male participants intending to enroll reported that their past physical education experiences were positive and facilitating their enrollment intention in physical education when it becomes an elective. On the other hand, the young women not intending to enroll stated that their past physical education experiences were negative and a barrier to their intention to enroll in grade 11 physical education.

4.1.2 Self-efficacy

Self-efficacy in physical activity settings and physical education classes greatly influenced female and male participants’ intention to enroll at both the high and low enrollment schools. Within this study, participants who had low self-efficacy towards their physical skills and abilities did not intend to enroll in physical education when they were given a choice. In contrast, the participants who did intend to enroll in elective physical education had high self-efficacy towards their physical skills and abilities. Self-efficacy focuses on the extent in which individual’s feel successful in performing a desired behavior (Bandura, 1997). Efficacy beliefs influence behavior through the choice of activity, the amount of effort exerted in the activity, and the amount of persistence exhibited in the face of obstacles and failures (Carron, Hausenblaus, & Estabrooks, 2003). When making the decision whether to enroll in elective physical education, participants expressed that their confidence in skill and physical ability influenced their
enrollment intention. As self-efficacy is closely related to motivational factors, such as choosing to participate in physical activity (Singer, Hausenblas, & Janelle, 2001), this may be transferred to elective physical education as adolescents are given a choice whether to enroll or not.

Research examining factors influencing participation in physical activity has found that self-efficacy in physical abilities is directly related to participation (Bandura, 1997; Maddux, Brawley, & Boykin, 1995). In addition, several studies have suggested the importance of self-efficacy in physical activity participation (Bandura, 1997; Maddux, et al., 1995). Confidence in physical activity and sports has been shown to be low among females (Ridgers, Fazey, & Fairclough, 2007). Previous research has indicated that male adolescents are more confident in their physical abilities than females, with only 47.6% of females believing they were good at sports compared to 79.4% of males (Couturier, et al., 2007). In sum, feelings of confidence and skill were essential for the students to enroll in physical education. If participants had low self-efficacy in their physical abilities, they did not intend to enroll in physical education when given a choice.

The efficacy of adolescents in physical educational settings may be linked to two other intrapersonal factors: past experiences and the preference to be active by oneself or with close friends. Those students who had low self-efficacy in their physical abilities also had negative past experiences in physical activity settings and in turn did not intend to enroll in physical education. Whereas, those students who had high self-efficacy in their physical abilities also had positive past experiences in physical education and intended to enroll. Therefore, self-efficacy in physical ability was directly related to the
past experiences in physical education and one’s intent to enroll in physical education when given a choice.

In addition, the young women at both the high and low enrollment schools who were not intending to enroll also discussed their preference to be physically active by themselves or with their close friends as opposed to their classmates in a physical education setting. Although never explicitly said by the participants, the intrapersonal barrier of low self-efficacy in physical activity and the preference to be physically active in the absence of others were related. The young women felt self-conscious participating in physical activity in front of others as they did not perceive themselves as highly skilled. These female students wanted to avoid being judged by others. The fear of being negatively evaluated has been shown to be negatively associated with physical activity participation (Garcia-Lopez et al., 2001; Ridgers et al., 2007). Females in particular become concerned with others’ judgments about their physical capabilities (Garcia-Lopez et al., 2001; Ridgers et al., 2007). This has been shown to exist more readily in females than males, as females are more likely to be concerned about the negative evaluation from peers (Garcia-Lopez et al., 2001; Ridgers et al., 2007).

4.1.3 Personal Choice: Scheduling

When students were deciding which courses to select for their class schedule their decision was based on two factors: required courses and elective courses. These two factors were discussed as both supporting and preventing enrollment in grade 11 physical education by the young men and women in this study. Both female and male participants who were not intending to enroll indicated that they perceived that physical education would not fit into their grade 11 class schedule. Among participants who were intending
to enroll, only females discussed scheduling as a factor influencing enrollment intention. Female participants revealed that they were able to schedule required courses needed for their future educational pursuits and their preferred elective classes, of which physical education was one of them.

It is questionable that some students were able to fit physical education into their course schedule and some students were unable to find room for physical education in their schedule. As one of the factors of perceived scheduling conflicts was required courses needed for graduation and post secondary education, it may be assumed that participants who were not intending to enroll were more academic and/or had different educational goals than participants who were intending to enroll. However, the demographic questionnaire revealed minimal differences between overall academic averages among the young men and women who were not intending to enroll (83.2%) and the young men and women who were intending to enroll (85.3%). Further, each participant was asked during the focus group interviews to disclose their future educational goals. There were no notable differences between the participants’ future educational goals and their intention.

Class schedules have unavoidable limitations, such as required courses and spaces available for elective choices, nonetheless, it must be noted that accessibility of physical education in the course schedule was also a facilitator to enrollment among female participants in both the high and low enrollment schools. Although male participants who were intending to enroll did not discuss scheduling as a facilitator to enrollment, they believed that physical education would fit into their course schedule. Furthermore, it must be noted that participants also indicated if they had room in their class schedule to take
physical education they would prefer to take a spare instead. This suggests that even if participants were able to fit physical education into their course schedule they would not choose to enroll. The findings from this study suggest that enrollment intention was more related to the lack of desire to enroll in physical education than the lack of accessibility in one’s class schedule.

Perceived scheduling conflicts may be attributed to the students’ preference to enroll in other elective classes. When selecting elective classes, grade 11 physical education was not at the forefront of class choices among participants not intending to enroll at the high and low enrollment schools. On the other hand, participants intending to enroll indicated that physical education was one of their top elective class choices. Interestingly, a distinct difference between the high and low enrollment schools was the number of elective class options. The low enrollment school had several more elective options than the high enrollment school yet participants at both schools indicated scheduling as a barrier to their enrollment intention. It may have been expected that adolescents within the low enrollment school did not elect physical education due to the vast amount of elective choices their school offered. However, in the contrary, the students from the high enrollment school, which offered significantly less elective classes than the low enrollment school, also reported scheduling as a barrier to their enrollment intention. Therefore, regardless of school and the number of electives a school has to offer, fitting physical education into their class schedule was a perceived barrier to enrollment intention among adolescents who were not intending to enroll in physical education.
4.1.4 Knowledge

A distinguishable barrier among male adolescents in the low enrollment school was the lack of knowledge regarding the grade 11 physical education course. When male participants were asked if they could describe the grade 11 physical education course the young men in the low enrollment school stated they did not have a clear idea of what the course entailed. It would seem male participants in the low enrollment school had little knowledge of the course and its contents. McLeroy et al. (1988) indicated that individual characteristics such as knowledge might be an important source of influence in the health related behaviors of individuals. Thus, knowledge was a major difference between schools among male participants and a deterring factor to enrollment in physical education.

Previous research on enrollment in elective physical education programs among males is limited. However, this intrapersonal barrier identified by the male participants in the low enrollment school was consistent with that of female participants in previous studies. Gibbons et al. (1999) indicated that providing students with information about the course prior to selection would play a vital role in influencing their enrollment choice. Previous findings have revealed that adolescents are unaware and uniformed about the elements within the grade 11 physical education course, therefore hindering enrollment choice (Gibbons et al., 1999). Providing information about the course to students before they make their enrollment choice may play an important role in their decision (Gibbons et al., 1999).
4.2 Interpersonal Factors

Within this study, several interpersonal factors were discussed as influencing participants’ enrollment intention. These factors included parents, friends, types of students enrolling, teammates and coaches, and teachers. However, all groups within this present study did not consistently report these interpersonal factors. Of the four ecological categories, differences between gender, intention, and school were evident in the interpersonal category. However, a common thread through all of the interviews was the significance of parental influence on the intention to enroll in each of the groups explored in this study. Research has shown that the influence of others is directly related to physical activity behavior among adolescents (Sallis et al., 2000; Trost et al., 2003; Welk, Wood, & Morss, 2003). Literature consistently confirms that social influences shape adolescent physical activity patterns (Anderssen & Wold, 1992; Kereeztes, Piko, Pluhar, & Page, 2008; Neumark-Sztainer et al., 2003). Social factors including parents and peers have been identified in the literature as either impeding or promoting youth’s engagement in physical activity (Thompson, Rehman, & Humbert, 2005).

4.2.1 Parents

A common factor through the interviews was the significance of parental influence on intention to enroll in physical education in each of the groups explored in this study. Students’ intention to enroll was both discouraged and encouraged by parents. Participants not intending to enroll indicated that their parents were discouraging their enrollment in physical education and supported their intention not to enroll. On the other hand, participants that were intending to enroll reported that their parents supported their intention to elect physical education.
Perceived Barriers and Facilitators

Parental support greatly influences the physical activity of children and youth (Anderssen & Wold, 1992; Sallis et al., 2000; Trost et al., 2003; Welk, et al., 2003). Consistent with previous research, parental support was a primary factor impacting adolescents’ intention to enroll in elective physical education in the present study. Although research has not looked specifically at social influences to enrollment in elective physical education, parental influences have been shown to affect engagement in physical activity among female and male adolescents (Anderssen & Wold, 1992; Humbert et al., 2008; Kereeztes, et al., 2008; Neumark-Sztainer et al., 2003). Numerous studies have determined that parental support of physical activity is positively associated with youth physical activity patterns (Sallis et al., 2000; Trost et al., 2003; Welk, et al., 2003). Literature has revealed that adolescents whose parents are supportive of physical activity are more likely to participate in physical activity than adolescents whose parents are not supportive of physical activity (Anderssen & Wold, 1992).

The young men and women within this study discussed that the value their parents placed on physical education programs determined the support or lack of support they received from their parents to enroll in elective physical education. Participants who were not intending to enroll revealed that their parents did not perceive physical education as a class that would be beneficial to their present or future educational goals. They explained that their parents were discouraging enrollment and encouraging other classes that were perceived as more academically valuable. Male participants at the low enrollment school discussed that their parents were discouraging enrollment because they were active outside of school hours. Parents of these male students believed the only purpose of physical education was to provide students with physical activity. Since their
sons were already active, they did not feel they needed to enroll in elective physical education.

In contrast, participants who were intending to enroll indicated their parents supported and encouraged enrollment because they perceived physical education as an important and valuable class. Previous literature had found that parents placed a higher value on academics than physical activity, including physical education. Parents frequently emphasized academics as a priority and gave academic courses precedence over structured school-based physical education (Allison et al., 2005).

The lack of awareness of the benefits of physical education may suggest that educators should strive to ensure that parents understand the value of a physically active lifestyle. The aim of physical education is the development of physically educated individuals (Saskatchewan Learning, 2004). In addition, physical education classes provide student opportunities to be physically active during the school day (Strong, Malina, Blimkie et al., 2005). Parents should be informed that physical education could benefit students’ health, well-being, and academics. School-based physical education has been shown to have many benefits, including muscular endurance, improving physical fitness, and reducing obesity during childhood and adolescence (Koplan, Liverman, & Kraak, 2005; Fairclough & Statten, 2005). In addition to the health benefits, physical education has been shown to have positive affects on academic achievement (Caterino & Polak, 1999; Shepard, 1997; Sibley & Ethnier, 2003; Keays & Allison, 1995). Numerous studies have shown a positive relationship exist between academic achievement and physical activity (Caterino & Polak, 1999; Keays & Allison, 1995; Shepard, 1997; Sibley & Ethnier, 2003). Literature suggests that increased physical activity during a school day
may induce arousal and reduce boredom and, in turn, can lead to increased attention span and concentration (Shepard, 1997). Furthermore, increasing activity levels during a school day may increase self-esteem, which would improve classroom behavior resulting in better academic performance (Shepard, 1997). Although the young men and women within this study indicated that their parents wanted them to focus on more academic classes, research has shown that physical education can have positive effects on academic achievement. Several studies have demonstrated positive effects of daily moderate to vigorous physical activity on student performance and academic achievement (Keays & Allison, 1995).

The results of the present study have shown the tremendous influence of parental support on adolescents’ decisions to enroll in elective physical education programs. The benefits of physical education on overall health and academic achievement need to be shared with parents. Research suggested that interventions aimed at increasing physical activity among adolescents may be enhanced by improving support from significant others, including parental support (Neumark-Sztainer et al., 2003). Thus, based on the results of this study and previous findings, parents are an important influencing factor on enrollment intention of both female and male adolescents.

4.2.2 Friends

Although friends have been recognized in the literature as one of the most common factors for the prediction of physical activity participation and motivation to be active among adolescents (Andessen & Wold, 1992; Humbert et al., 2006; Humbert et al., 2008; Smith, 1999; Thompson et al., 2005; Tergerson & King, 2002), friends was only reported as a influential factor to enrollment intention among female participants not
intending to enroll in grade 11 physical education. Limited research has explored the influence of friends on enrollment in elective physical education. However, social factors, including the influence of friends, have been identified as facilitating physical activity participation among youth (Andersen & Wold, 1992; Humbert et al., 2006; Humbert et al., 2008; Thompson et al., 2005).

Within the present study friends was only reported as a barrier among female participants. This finding may be explained by two reasons. First, literature has suggested that social support affects females and males differently (Anderssen & Wold, 1992). Previous research has revealed that males are exposed to greater number of social systems that influence and encourage activity participation (Anderssen & Wold, 1992). However, females are affected by the influence of others more than males (Anderssen & Wold, 1992). Specifically, several studies have reported a stronger association for females compared to males between the involvement in physical activity and the influence of friends (Anderssen & Wold, 1992; Reynolds et al., 1990). This may explain why males did not report friends as a factor to their enrollment intention.

Second, female participants not intending to enroll revealed other barriers to their enrollment intention that were connected to the interpersonal barrier of their friends not intending to enroll. These barriers included the desire to participate in physical activity in the absence of others or with close friends and the dislike of the students who were intending to enroll in elective physical education. The young women expressed their lack of self-efficacy in their physical abilities and the preference to be active by themselves or with close friends. This desire to be active with their own peer group is related to the barrier of friends not enrolling in physical education.
In addition the dislike of the students intending to enroll in physical education was overwhelmingly present in the interviews with the females who were not intending to enroll in grade 11 physical education. Closely associated with the barrier of friends not enrolling, female participants reported that the ‘types’ of students who were enrolling were preventing their desire to elect physical education. The young women revealed that their close friends were not intending to enroll and they did not like the ‘types’ of people who were intending to enroll.

Olfason (2002) found that females preferred to be physically active in front of people in the same friendship group as this relieved the discomfort and self-consciousness female students felt in physical activity environments. The young women not intending to enroll had negative past experiences with students who they perceived were more athletic, more successful in physical education classes, and those who were favored by their classmates and teachers. They felt self-conscious participating in an activity in front of the students intending to enroll, as they did not perceive themselves as highly skilled in the activities within the physical education course. The female participants wanted to avoid being judged by students with high physical ability and did not want to be in the same physical activity setting as these types of students. The findings of this study offer evidence that the role of friends is an influential factor in relation to enrollment in physical education among female adolescents and may need to be targeted in order to increase enrollment in elective physical education among female adolescents.
4.2.3 Teammates and Coaches

A unique factor among participants, both female and male, who were intending to enroll was support from teammates and in-school coaches. The young men and women discussed that the support and encouragement they received from their teammates and in-school coaches greatly influenced their intention. As participants intending to enroll were often members of their school sport teams, their teammates who had previously taken grade 11 physical education were encouraging them to enroll. In addition, their coaches, who were also teachers at their school, were discussing the course with them and encouraging enrollment.

This additional support may be attributed to school extracurricular participation. Participants enrolling, both female and male, had a higher percentage of in-school sport participation than those participants not intending to enroll. Sixty-seven percent of the young men and women intending to enroll participated on a school sports team. Only 43% of the students not intending to enroll participated on a school sports team. This contact influenced participants’ intention to enroll in grade 11 physical education. Research has shown that coaches have a strong influence on adolescents and can positively impact physical activity involvement (Sallis et al., 2000). Interestingly, the facilitator of encouragement from coaches and teammates may be contributing to a barrier reported female participants. Female participants not intending to enroll discussed the ‘types’ of students enrolling in elective physical education. These students were described as athletic, good at sports, and successful in physical education. As coaches were encouraging their players to enroll in elective physical education this may result in a greater number of these ‘types’ of students enrolling. In sum, the young men and women
who were intending to enroll were in contact with coaches and teammates who supported and encouraged their enrollment. This support was a facilitator to their enrollment intention.

4.2.4 Teacher

Teacher influence was an important factor only among male adolescents intending to enroll within the high enrollment school. Male participants described that their grade 10 physical education teacher discussed the grade 11 physical education course with them and encouraged enrollment. Although literature has revealed that teachers have an influential role on students’ activity behaviors (Sallis et al., 2000), male participants in the high enrollment school were the only group that mentioned teachers as an influential factor to their enrollment choice.

This interpersonal influence of male participants’ physical education teacher, in turn, provided the participants with the intrapersonal factor of knowledge. Knowledge has been previously discussed as an influencing factor to enrollment choice. As such, an important factor facilitating enrollment intention among male participants in the high enrollment school was knowledge about the course and its contents. Males intending to enroll in the high enrollment school had the best understanding and knowledge of the grade 11 physical education program of all participants interviewed. In light of this, male participants intending to enroll in elective physical education at the high enrollment school had the highest enrollment percentage of all participant groups. This finding emphasizes the need for teachers to be aware of the effect they have on promoting enrollment in physical education programs.
4.3 Institutional Factors

The institutional barriers and facilitators reported by participants revealed several specific differences between school, gender, and participants’ intention. However, a overarching theme was present. The theme that emerged among the institutional factors reported by the young men and women within this study was the grade 11 physical education course curriculum. Within the participants’ school, the course curriculum was a barrier and a facilitator to the students’ enrollment intention.

4.3.1 Course Curriculum

An institutional factor that influenced the intention to enroll among all participants was the grade 11 physical education course curriculum. All of the young men and women discussed the course curriculum as either a barrier or facilitator to their enrollment intention. The influence of the course curriculum was based on two factors. First, enrollment intention was largely a result of students’ value towards the grade 11 physical education class. The young men and women who viewed the course as valuable to their present and future educational goals intended to enroll in physical education. Conversely, the participants who did not value the course and perceived the course as ‘useless’ to their education and future goals did not intend to enroll. Second, intention to enroll was highly associated with the activities within the course curriculum. Participants who were not intending to enroll stated that the activities within the course curriculum were barriers to their enrollment. On the other hand, participants that were intending to enroll expressed they enjoyed the activities within the course.

Value or lack of value towards the course curriculum was both a barrier and facilitator to enrollment intention among the young men and women within this study.
The students with an intention to enroll in physical education were the only group that discussed the importance of physical education. It was clear that the young men and women intending to enroll in elective physical education valued the physical education curriculum. These students believed that the content was beneficial to their health and contributed to their present and future educational goals.

Students not intending to enroll in elective physical education did not value the physical education curriculum. The young men and women not intending to enroll did not consider physical education an ‘academic’ subject, explained they needed to take ‘academic’ classes for their post-secondary education, and did not view physical education class to be useful to their future. Previous research reports that physical education is not seen as a subject of priority among adolescents (Couturier et al., 2007; Hardman & Mashall, 2000). Couturier et al. (2007) reported that 38% of female and 52% of male adolescents believed that physical education was not as important as English and math.

As the interviews progressed, it became apparent that the lack of desire to enroll in physical education was related to their perceptions of the grade 11 physical education curriculum. These findings suggest that educators need to ensure that their students understand the benefits and purpose of the physical education curriculum. It is evident from the results of this study that the value and importance of physical education is not explained. Therefore, it is essential to remind or inform students of the value of participating in physical education class. The lack of awareness of the benefits of physical education among adolescents may suggest that educators need to make certain
that their students know that participation in physical education can benefit all aspects of their health and well-being.

Another major factor influencing enrollment intention was the activities within the course curriculum. Physical education curriculum content has been considered an influential factor for both positive and negative attitudes towards physical education (Luke & Sinclair, 1991). The curriculum has been identified as the top-rated factor of attitudes towards physical education regardless of gender or intention (Luke & Sinclair, 1991). Within the present study the activities in the physical education curriculum were reported as both a barrier and facilitator to enrollment intention.

The young men and women who were not intending to enroll described the activities in the physical education curriculum as pointless and they felt what was learnt in the course would be no value to their future. Specifically, the young men and women discussed the dislike of team sports and perceived the majority of the grade 11 physical education curriculum to be composed of team sports. The findings within this study mirrored the majority of previous work on this issue (Fraser-Thomas & Beaudoin, 2004; Gibbons & Gaul, 2004; Gibbons et al, 1999; Humbert, 1995; Luke & Sinclair, 1991). Limited research has explored physical education curriculum among male adolescents. However, previous research has shown that male adolescents not electing to enroll in physical education still identified curriculum as a positive determinant rather than a negative determinant (Luke & Sinclair, 1991). Luke and Sinclair (1991) found that only 2.6% of males regarded team sports as a determinant of negative attitudes towards physical education.
Numerous studies have explored females’ attitudes toward physical education curriculum content. In a study to gain understanding of adolescent girls’ physical education likes, dislikes, and ideals, Fraser-Thomas and Beaudoin (2004) found ‘activity type’ was a primary factor contributing to their enjoyment of physical education classes. Female students preferred recreational individual activities versus team sports and competition (Fraser-Thomas & Beaudoin, 2004). This was consistent with findings within this study. Female participants in the high enrollment school reported the focus of team sports within the grade 11 physical education curriculum as a barrier to their enrollment. This dislike of team sports may be related to the female participants lack of efficacy in team sport activities. Research has shown adolescent females have been reported to have a low perception of their athletic ability (Ridgers et al., 2007; Trew et al., 1999). As indicated earlier, the intrapersonal barrier of self-efficacy was connected to the other ecological barriers. Female participants had low self-efficacy towards their athletic ability and they expressed their lack confidence in their physical skills, particularly in team sports. As they viewed the curriculum to be primarily composed of team sports, the curriculum was a barrier to their enrollment intention. Female participants at the low enrollment school discussed their dislike of the new activities within the course. They expressed their lack of self-confidence in their abilities to participate in physical activities they have never tried before. These young women reported they would prefer to have the same curriculum as previous physical education classes, due to their low self-efficacy for attempting new activities. This confirms the importance of self-efficacy in physical activity settings in the decision to enroll in elective physical education.
Further, the desire for a non-competitive physical education environment became evident in the focus group interviews with the young women in the high enrollment school. A distinctive institutional barrier among female adolescents within the high enrollment school was the dislike of competition in physical education classes. Numerous studies have found that females desire to participate in physical education in a fun and noncompetitive environment (Brown, 2000; Humbert, 1995; Humbert et al., 2008; Park & Wright, 2000; Schofield, Mummery, Schofield, & Walmsely, 2002). Couturier, Chepko, and Coughlin (2007) indicated that only 51% of females, compared to 81% of males enjoyed playing competitive activities. Van Daalen (2005) stated that one of the key factors associated with girls’ decision to drop physical education was the compulsory competition that was involved. Research has suggested that physical education for females should shift the focus away from competition in order to meet the needs of female students and increase the number of young women enrolled in physical education (Lenskyj, 1995; van Daalen, 2005). This finding is consistent with previous literature as research has shown one of the reasons for opting out of physical education is the over-emphasis on competition and winning (Scantling, Strand, Lackey, & McAleese, 1995).

Literature suggests that the traditional competitive sport curriculum model is not meeting the needs of female students (Gibbons et al., 1999). In addition to moving away from a traditional sport curriculum, to increase female’s value towards physical education, it is recommended to include more academic content focusing primarily on fitness and health outcomes (Fraser-Thomas & Beaudoin, 2004; Gibbons et al., 1999). Little emphasis is placed on lifelong fitness and health (Sallis & McKenzie, 1991), which numerous studies have shown is more meaningful and valuable to female students.
(Gibbons et al., 1999; Dale, Corbin, & Cuddihy, 1998). Furthermore, female participants within this study discussed their dislike of running in physical education. Although literature has revealed shifting the focus from sports-model to a fitness and health model, running activities and long runs are viewed as unfavorable (Luke & Sinclair, 1991). Luke and Sinclair (1991) found that running activities and long runs were a significant contributor to negative attitudes towards physical education. It has been recommended that curricular alternatives include personal fitness, skills needed to engage in lifelong activities, and personal physical activity goals (Gibbons & Gaul, 2004; Gibbons et al., 1999; Luke & Sinclair, 1991; Olafson, 2002). In order to make physical education meaningful for adolescent females, emphasis should be placed on lifelong fitness and health (Sallis & McKenzie, 1991), which is more meaningful and valuable to female students (Dale et al., 1998; Gibbons et al., 1999). These suggestions would be applicable to the participants within this study as they indicated barriers to their enrollment intention were course curriculum and lack of value towards physical education.

Female and male students reported similar institutional facilitators to enrollment. These facilitators included the course curriculum, the new activities within the curriculum, a break from their other classes, and the limited amount of homework in physical education class. As indicated earlier, curriculum has been reported to be an influential factor of both positive and negative attitudes towards physical education among female and male students (Luke & Sinclair, 1991). Unlike participants not intending to enroll in elective physical education, who reported a dislike of the grade 11 physical education curriculum, participants intending to enroll discussed an enjoyment of activities within the elective physical education course.
The young men and women who intended to enroll indicated they enjoyed the activities within the curriculum and the curriculum provided them with an opportunity to try new activities. As indicated earlier, intrapersonal facilitators discussed by participants intending to enroll included the enjoyment of team sports and were confident in their physical abilities. Efficacy in their physical abilities may be related to the enjoyment of the new activities within the grade 11 physical education course. Since participants were confident in their physical abilities they were also confident trying activities they have never tried before. Both female and males who were not intending to enroll revealed they were not confident in the physical abilities and therefore did not like trying the new activities in the physical education course. In sum, since the grade 11 physical education curriculum had activities that most students have not tried before, self-efficacy became an important factor influencing enrollment intention.

4.4 Community Factors

4.4.1 Activity Opportunities

All participants reported that their community influenced their enrollment intention with the exception of the male students not intending to enroll. Female participants stated that their community was a barrier to their enrollment intention and the young men and women who were intending to enroll reported that their community was facilitating their enrollment intention. However, throughout the focus group interviews it became apparent that community factors were less influential on enrollment intention than the factors within the intrapersonal, interpersonal, and institutional ecological categories. No research has examined community factors to enrollment in elective physical education. However, research has suggested that increases in levels of physical
activity among adolescents can be accomplished by increasing the number of activity opportunities within one’s community (Sallis et al., 2001).

When the female participants were asked if their community influenced their intention not to enroll in elective physical education, participants explained that their community provided them with the choice of activity to participate in and control over when and whom to participate with. Specifically, the young women explained their community provided them opportunities to be physically active without the presence of their peers and they could engage in activity of their choice and on their own time (i.e. swimming; run on a treadmill). Females discussed they were self-conscious participating in physical activity and indicated they did not like to engage in physical activity in front of others. The young women explained that because their community provided them opportunities to remain active while addressing the intrapersonal barrier of being self-conscious participating in front of others, the interpersonal barrier of being active in front of certain ‘types’ of students, and the institutional barrier of participating in activities they did not enjoy, they would prefer to be active in their community instead of physical education class. Therefore, the ability to be active in one’s community was a barrier to enrollment intention among female participants.

The young men and women intending to enroll, describe their community as enhancing their desire to enroll in elective physical education. Both female and male participants indicated that their community was a facilitator to their intention to enroll in physical education. Participants described that being active within their community promotes and encourages them to be more active and therefore enroll in elective physical education. In addition, female and male participants pointed out that the grade 11
physical education curriculum had activities that they could not participate in within their community (i.e., scuba diving). Therefore in order to participate in the unique activities within the physical education course, participants felt they needed to enroll in physical education. Although community factors were not reported as frequently as other ecological factors, the factors still had notable influences to enrollment intention.
CHAPTER 5

5.0 SUMMARY AND CONCLUSIONS

Literature has shown that physical education has the potential to play an important role in the development of healthy lifestyles of adolescent students (Dale et al., 2000; Mandigo, 2004; Robertson-Wilson, Levesque, & Richard, 2007; Telama et al., 2005). However, when given a choice, the majority of young men and women are not choosing to enroll in physical education when it becomes an elective (Gibbons et al., 1999). Research has provided inadequate insight into the factors influencing enrollment in elective school-based physical education. The studies exploring factors to enrollment in physical education programs have focused primarily on factors that discourage enrollment among female adolescents. The present study attempted to fill the gaps in the literature by including factors that encourage enrollment (i.e., facilitators) as well as involving male students in research of this type. In addition, this study was the first to that used the ecological model to investigate personal and social environmental factors to enrollment intention in elective physical education programs. In order to focus on both personal factors and social environmental factors to enrollment intention the ecological model developed, by McLeroy and colleagues (1988), was utilized. The ecological model (McLeroy et al., 1988) assisted in the development of the focus group questions, which helped uncover different levels of personal and social environmental factors, and was used to categorize the factors into one of four ecological categories: intrapersonal, interpersonal, institutional, and community.

The overall objective of this study was to explore factors that were associated with intention to enroll in grade 11 elective physical education among female and male
adolescents. Specifically, the purpose of this study was to identify perceived barriers and facilitators to intention to enroll in elective physical education. Participants who had no intention to enroll in grade 11 physical education were asked questions regarding the factors that they perceived as inhibiting their intention to enroll (i.e., barriers). Participants who had an intention to enroll in grade 11 physical education were asked questions regarding the factors that they perceived as promoting their intention to enroll (i.e., facilitators).

Participants were purposefully selected from schools with high enrollment in elective physical education and a school with low enrollment in elective physical education. However, differences between factors discussed among participants in the high and low enrollment schools were minimal. Differences were more prominent between gender and intention. These differences between females and males and between participants who were intending to enroll and participants who were not intending to enroll had consistent overarching themes. At the intrapersonal level, participants frequently discussed the importance of their past experiences in physical education classes, self-efficacy in physical activity settings, and their scheduling choices, as either a barrier or a facilitator to their intention to enroll. In addition, the young men at the low enrollment school explained that their lack of knowledge regarding the grade 11 physical education course was a barrier to their enrollment intention. In the interpersonal category, several people influenced the participants’ intention to enroll in elective physical education. These people included parents, friends, teammates and coaches, and teachers. However, the influence of parents emerged as a prominent interpersonal factor to enrollment as parents were discussed by all participants regardless of gender, intention, or
school. One factor that greatly influenced the young men and women’s intention to enroll at the institutional level was the course curriculum. The community factors were not as frequently discussed as the factors within the other ecological categories; however, the community was still reported as either a barrier or a facilitator to enrollment intention.

5.1 Strengths and Limitations

The main strength of this research was the contribution to the existing literature. This study addressed three limitations within the present literature. First, the majority of factors identified by participants were personal barriers. Limited social environmental barriers have been identified within the literature. This study identified several social environmental factors to enrollment intention in elective physical education. Second, factors which encourage enrollment (i.e., facilitators) have not distinctly been identified in the literature. A strength of this study was the inclusion of students who were intending to enroll in elective physical education and the identification of factors that facilitated their enrollment intention. Third, the majority of previous research has explored factors to enrollment among female students. The study uncovered perceived barriers and facilitators to enrollment in elective physical education in both females and males, which lend insight into whether females and males experience the same and/or different perceived barriers and facilitators to enrollment in elective physical education. This information can assist in targeting gender specific factors which influence one’s enrollment in elective physical education.

As with all research, there are some accompanying limitations to this study. Similar to other qualitative research, the number of young men and women participating in the focus group interviews was small. The findings of this study are limited to the
sample population and the schools that the participants attended. Every effort was made to offer rich descriptions of the participants and the participating schools in hope that the reader could come to an understanding of the factors influencing the enrollment in elective physical education. With such an understanding, readers might be able to recognize situations that are similar to their own and transfer these findings to other situations as they see appropriate (Locke, 1989; Thomas et al., 2005). Additionally, bias is a limitation of focus group interviews. The participants took part in focus group interviews and therefore were exposed to the thoughts and views of the other young men and women in the interviews which may have influenced their own responses. It is impossible to exclude the possibility that some participants may have provided socially desirable responses during the focus group interviews.

Numerous factors within each ecological category were identified as influencing enrollment intention in elective physical education among the participants. The ecological model (McLeroy et al., 1988) provided this research with a systematic approach to classification of the identified barriers and facilitators and helped uncover personal and social environmental factors influencing enrollment intention. Although recognizing the strengths of the ecological framework, it is not without limitations. By using the ecological model the factors reported by the participants were categorized into one of four ecological categories. The classification of factors into one of the four categories was difficult within this study as some factors could fit into more than one category. The intent of organizing the factors into distinct categories is to assist in the development of effective interventions, which can target the factors within a specific ecological category. Thus, it is critical to ensure the barriers and facilitators are correctly
categorized. Within this study, factors could have been categorized into more than one category, which may have resulted in inaccurate categorization and therefore a limitation of this study.

5.2 Suggestions for Future Research

Based on the findings of this study, there are still many areas that need to be addressed in order to gain a better understanding of the factors that influence enrollment in elective physical education. This study provided preliminary findings on the factors that facilitated students’ enrollment intention in elective physical education. Within the literature, facilitators to enrollment in elective physical education programs are an under-investigated area of research. Factors that facilitate enrollment need to be further investigated. Facilitators are important in that targeting the enhancement of perceived personal and social environmental facilitators in concert with the targeted alleviation of perceived personal and social environmental barriers may be more effective that focusing solely on facilitators or solely on barriers (cf. Rimmer et al., 2004).

Further, a more in-depth understanding of the reported ecological factors is needed. Within the intrapersonal ecological category the students in this study repeatedly stated that their efficacy in physical activity settings, including physical education, was either promoting or inhibiting their enrollment intention. The female participants reported that their low perception of their physical abilities in physical education settings was a barrier to their intention to enroll. In the literature, self-efficacy has been shown to influence one’s participation in physical activity (Bandura, 1997; Maddux, Brawley, & Boykin, 1995). Self-efficacy theory suggests four primary sources of self-efficacy: past performance, vicarious experiences, social persuasion, and physiological/affective states
Perceived Barriers and Facilitators

(Bandura, 1997). These four sources of self-efficacy were also shown within this study as influencing factors to enrollment intention. However, self-efficacy and the influence of self-efficacy on enrollment in elective physical education programs have not been explored. Emphasis should be placed on enhancing young women’s beliefs about their own self-efficacy to participate in physical education. This may be effective as the young men and women intending to enroll all indicated they have high self-confidence in physical activity settings including physical education.

The results of this study indicated that physical education is not viewed as an important class among the participants not intending to enroll as well as their parents. The benefits of physical education programs need to be better communicated to both students and parents. Educators should strive to ensure that their students understand that leading a healthy active lifestyle can benefit their health and physical education programs can assist in developing an active lifestyle. In addition, further research is needed to understand the influence of parents on students’ class choices. Parents may need to be targeted and their knowledge of the importance of physical education programs may need to be enhanced.

The factors identified by participants were factors the students’ perceived as either inhibiting or promoting their enrollment intention. These factors may or may not be actual factors that prevent or encourage enrollment in grade 11 physical education. Future researchers should examine if these factors are actual barriers and facilitators to enrollment intention or perceived factors influencing enrollment intention. For example, female participants discussed the focus on competition in the grade 11 course curriculum as a barrier to their intention to enroll in elective physical education. Researchers should
examine if a focus on competition within the grade 11 physical education course curriculum actually exists or if it is perceived by the participants, which would better inform strategies to overcome the barrier.

This study provided insight into factors preventing and promoting enrollment in grade 11 elective physical education. From the findings of this study, it became clear that current physical education programs are meeting the needs of some students while not meeting the needs of others students. For example, participants not intending to enroll indicated that the grade 11 physical education course curriculum was a barrier to enrollment, whereas participants intending to enroll viewed the course curriculum as a facilitator to their enrollment intention. The challenge is to develop and teach physical education courses that meet the needs of all students. More research is needed to understand the complexity of developing programs that all students find meaningful and motivating.

This study provided necessary information on the identification of barriers and facilitators to elective physical education. Future research should focus on the development of a valid and reliable questionnaire that can be used to assess individual and social environmental barriers and facilitators to enrollment in elective physical education among a larger population. The information obtained from the questionnaire then could assist in the development of future interventions targeting specific salient barriers and facilitators, which in turn should increase intention and actual enrollment in elective school-based physical education programs.

The role that school-based physical education programs have in the development of knowledge, skills, and attitudes needed for an active healthy lifestyle is well
documented (Mandigo, 2004; Sallis & McKenzie, 1991). The findings of the current study offer physical educators information that can assist in the promotion of elective school-based physical education programs. It is clear that one of the strengths of this study was the exploration of different levels of ecological factors. A number of factors were identified as being important to students’ enrollment intention. If the enrollment in elective physical education is going to be increased, physical education programs must continue to target the personal and social environmental factors that influence students enrollment in physical education and address the findings within this study.
References


Perceived Barriers and Facilitators


Perceived Barriers and Facilitators


Perceived Barriers and Facilitators


Appendix A

Stratification of Focus Groups

School with **Highest Enrollment** in Grade 11 Elective Physical Education
(Total 4 Focus Groups)

- **Female Students**
  - Focus Group #1: Intention to Enroll in Grade 11 Elective PE (n = 4)
  - Focus Group #2: Intention *not* to Enroll in Grade 11 Elective PE (n = 4)

- **Male Students**
  - Focus Group #3: Intention to Enroll in Grade 11 Elective PE (n = 7)
  - Focus Group #4: Intention to Enroll in Grade 11 Elective PE (n = 7)

Total Number of Participants= 22 (8 female; 14 male)
**No male participants in No Intention group**

School with **2nd Highest Enrollment** in Grade 11 Elective Physical Education
(Total 2 Focus Groups)

- **Male Students**
  - Focus Group #5: Intention to Enroll in Grade 11 Elective PE (n = 5)
  - Focus Group #6: Intention *not* to Enroll in Grade 11 Elective PE (n = 4)

Total Number of Participants= 9 (9 males)
**No female participants**
School with **Lowest** Enrollment in Grade 11 Elective Physical Education
(Total 6 Focus Groups)

**Total of 12 focus groups**
**Total of 63 participants**
Appendix B
Environmental Scan
### NEIGHBORHOOD ASSESSMENT

<table>
<thead>
<tr>
<th>Nearest access road(s): name</th>
<th>Light □</th>
<th>Light □</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of traffic:</td>
<td>Med. □</td>
<td>Med. □</td>
</tr>
<tr>
<td></td>
<td>Heavy □</td>
<td>Heavy □</td>
</tr>
<tr>
<td>Sidewalk adjacent to road</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Sidewalk separated from road (more than 3m)</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Bike lanes or road</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

(Please tick if yes)

- Is a fitness facility visible from the school ground? □
- Is a park/open space visible from the school ground? □
- Is a pool visible from the school ground? □
- Is a major shopping centre visible from the school ground? □
- How many restaurants are visible from the school ground?
  - How many of these are fast food?

Other comments regarding school neighborhood:

__________________________

__________________________

__________________________
# NEIGHBORHOOD ASSESSMENT

**Nearest access road(s):** name

<table>
<thead>
<tr>
<th>Level of traffic</th>
<th>Light</th>
<th>Med.</th>
<th>Heavy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

- Sidewalk adjacent to road ☐
- Sidewalk separated from road (more than 3m) ☐
- Bike lanes or road ☐

*(Please tick if yes)*

- Is a fitness facility visible from the school ground? ☐
- Is a park/open space visible from the school ground? ☐
- Is a pool visible from the school ground? ☐
- Is a major shopping centre visible from the school ground? ☐
- How many restaurants are visible from the school ground? ☐
  - How many of these are fast food? ☐

**Other comments regarding school neighborhood:**

________________________
________________________
________________________
________________________
________________________

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Perceived Barriers and Facilitators

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115
### Perceived Barriers and Facilitators

<table>
<thead>
<tr>
<th>(for the following, record number)</th>
<th>Indoors</th>
<th>Outdoors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volleyball court</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basketball hoop</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Walking path/track</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Soccer goal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tennis courts</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Size of open space/grassy areas</th>
<th>m x m</th>
</tr>
</thead>
</table>

Other outdoor fitness or sport facilities

---

#### Number of male showers
Tally: ____________
No. = ____________

#### Number of female showers
Tally: ____________
No. = ____________

#### Number of stairwells
No. = ____________

<table>
<thead>
<tr>
<th>Stairway Number</th>
<th>#1</th>
<th>#2</th>
<th>#3</th>
<th>#4</th>
<th>#5</th>
<th>#6</th>
<th>#7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staircase not enclosed in stairwell</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Able to see stairs from entrance</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Carpeted</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Painted/decorated/finished walls</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Utilities not visible in stairwell</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>(eg. Gas pipes, electrical wires)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Door is ajar on most or all floors</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Door is unlocked on most floors</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Signs encouraging use of stairs</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

Other comments regarding the building:

---

---

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SIGNS AND BULLETIN BOARDS (the information environment)

Number of bulletin boards in the hallways
Tally: ___________________________  No. = ________

In motion:
Number of in motion signs or posters
Tally: ___________________________  No. = ________

Physical activity:
Number of signs or posters generally encouraging physical activity
Tally: ___________________________  No. = ________
Number of notices about in-school exercise opportunities
Tally: ___________________________  No. = ________
Number of notices about out-of-school exercise opportunities
Tally: ___________________________  No. = ________
Number of other notices about physical activity/sports
Tally: ___________________________  No. = ________

Nutrition:
Number of signs/posters encouraging more fruits and vegetables or promoting programs
Tally: ___________________________  No. = ________
Number of signs/posters encouraging dietary fat reduction or promoting programs
Tally: ___________________________  No. = ________
Number of notices about dietary information
Tally: ___________________________  No. = ________
Number of notices about weight loss
Tally: ___________________________  No. = ________

Smoking:
Number of smoking areas
No. = ________
Number of signs about smoking restrictions on or around the school entrances
Tally: ___________________________  No. = ________
Number of notices on bulletin boards about smoking cessation programs or smoking policies
Tally: ___________________________  No. = ________
### SIGNS AND BULLETIN BOARDS (the information environment)

**Number of bulletin boards in the hallways**
- **Tally:** ____________  
  - **No. = _____**

**In motion:**
- **Number of in motion signs or posters**
  - **Tally:** ____________  
  - **No. = _____**

**Physical activity:**
- **Number of signs or posters generally encouraging physical activity**
  - **Tally:** ____________  
  - **No. = _____**

- **Number of notices about in-school exercise opportunities**
  - **Tally:** ____________  
  - **No. = _____**

- **Number of notices about out-of-school exercise opportunities**
  - **Tally:** ____________  
  - **No. = _____**

- **Number of other notices about physical activity/sports**
  - **Tally:** ____________  
  - **No. = _____**

**Nutrition:**
- **Number of signs/posters encouraging more fruits and vegetables or promoting programs**
  - **Tally:** ____________  
  - **No. = _____**

- **Number of signs/posters encouraging dietary fat reduction or promoting programs**
  - **Tally:** ____________  
  - **No. = _____**

- **Number of notices about dietary information**
  - **Tally:** ____________  
  - **No. = _____**

- **Number of notices about weight loss**
  - **Tally:** ____________  
  - **No. = _____**

**Smoking:**
- **Number of smoking areas**
  - **No. = _____**

- **Number of signs about smoking restrictions on or around the school entrances**
  - **Tally:** ____________  
  - **No. = _____**

- **Number of notices on bulletin boards about smoking cessation programs or smoking policies**
  - **Tally:** ____________  
  - **No. = _____**
**FITNESS CENTRE ASSESSMENT (other than gymnasiums)**

Number of workout areas  
(eg. Weight room, combative room, cardio room)

<table>
<thead>
<tr>
<th>Area</th>
<th>Width (m)</th>
<th>Length (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size of workout area #1:</td>
<td>m X m</td>
<td></td>
</tr>
<tr>
<td>Size of workout area #2:</td>
<td>m X m</td>
<td></td>
</tr>
<tr>
<td>Size of workout area #3:</td>
<td>m X m</td>
<td></td>
</tr>
<tr>
<td>Size of workout area #4:</td>
<td>m X m</td>
<td></td>
</tr>
</tbody>
</table>

Treadmills No. = 
Bikes No. = 
Rowing machines No. = 
Stepper machines No. = 
Free weights No. = 
Resistance equip. No. = 
Other machines No. = 

TV in workout area □
Music in workout area □

Who can use the workout area(s)?

Extra fee for use of the area(s): $ ______

When is/are the workout area(s) available?

Other comments regarding the fitness centre(s):

---

119
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<th>Interscolastic sports teams</th>
<th>Boys No.</th>
<th>Girls No.</th>
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<tr>
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</tr>
<tr>
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<tr>
<td>Cross-country</td>
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<td>Track &amp; Field</td>
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<tr>
<td>Hockey</td>
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<td>Football</td>
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<tr>
<td>Grades:</td>
<td>9</td>
<td>□</td>
<td>10</td>
<td>□</td>
<td>11</td>
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<td>Floor hockey</td>
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<tr>
<td>Grades:</td>
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<td>□</td>
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<td>Grades:</td>
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<td>□</td>
<td>10</td>
<td>□</td>
<td>11</td>
<td>□</td>
</tr>
</tbody>
</table>

Who is eligible to participate?

Other comments regarding organized physical activity opportunities for students:
ASSESSMENT OF CAFETERIA AND FOOD SERVICE

Cafeteria:
Number of signs/posters promoting healthy food choices (eg. Canada’s Food Guide) Tally: ____________ No. = ________

(for the following, tick if present)
Fresh fruit
Fresh vegetables
Green salads
Lowfat milk or yogurt
Pasta

Number of other low/reduced fat items on menu or on notices No. = ________

Number of items with easily visible nutrition information signs No. = ________

(for the following, tick if present)
Microwave No. = ________
Seating in or near food preparation area No. = ________

Vending machines:
Number of beverage vending machines No. = ________
Number of food/snack vending machines No. = ________
Number of signs/posters promoting healthy food choices around/on machines Tally: ____________ No. = ________

(tick if yes or present)

Vending machine number #1 #2 #3 #4 #5 #6 #7
Please tick if snack machine
Please tick if soft drink machine
Please tick if hot beverage machine
Please tick if machine offers fruit juice
Please tick if machine has clear front
(Please write NA if not applicable)
Number of items the machine holds
Number of slots w/ low fat/sugar snacks

122
<table>
<thead>
<tr>
<th>Perceived Barriers and Facilitators</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Number of slots w/ fruit juice or water</th>
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<th></th>
<th></th>
<th></th>
<th></th>
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<tr>
<td>Number of slots w/ diet soft drinks</td>
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<td></td>
<td></td>
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<tr>
<td>Number of items the machine holds</td>
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<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

Other comments regarding cafeteria and food services:

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CATCHMENT AREA


WHAT IS THE SCHOOL “KNOWN FOR”?


GENERAL COMMENTS


Appendix C

Grade 11 Physical Education Course Descriptions

• **Highest Enrollment School**

  The emphasis of this program is on the importance of physical activity in the maintenance of personal well-being. Students will be exposed to a number of lifetime carry-over activities, including golf, badminton, curling, tennis, swimming, skiing (downhill and/or cross country), care and prevention of athletic injuries, fitness, 5 pin bowling, tae-kwon-do, wall-climbing and dance. A student volunteer and leadership component is also an expectation of the course. A fee is charged to cover the costs of facility rentals. Most transportation to and from facilities will be provided.

• **Second Highest Enrollment School**

  The purpose of this course is to promote a student's interest and activity in a variety of individual and team activities in which he or she can participate throughout his or her lifetime. The course is designed to develop physical and motor skills, mental skills, and the learning of concepts that will allow for participation in a wide variety of activities. This course makes extensive use of community and city facilities. Transportation to the majority of off-campus activities will be provided. There may be occasional instances where a student is required to arrange for his/her own transportation.

• **Low Enrollment School**

  The focus of this course is teaching a variety of lifetime recreational activities to students. Activities may include: scuba diving, aquatics, racquetball, golf, broomball, horseshoes, self-defense, recreational games, first aid, five-pin bowling, curling, wall climbing, and fitness facility tours. Many activities will be held off campus and therefore a class fee is required to partially cover the cost of facility and equipment rental.
Appendix D

School Descriptions

Highest Enrollment School

This school had the highest enrollment in grade 11 elective physical education in the Saskatoon Public School Division with 57% of grade 11 students enrolled in the 2007-2008 school year. The population of this school was 850 students, which was the smallest among the three participating schools.

A unique academic offering at this school was the elective Dance course. This class was a new course offering as of 2007/08 school year and was offered at all 4 grade levels. In the 2007-2008 school year, 40 female students were enrolled in the Dance course. Among these 40 students, only 5 grade 11 females were enrolled, which was 5.2% of the grade 11 female population. The course curriculum included an exploration of the technique, theory, and performance of a wide variety of dance forms. This course was for all levels of dancers, female or male, however only females were enrolled. In addition to this elective course, this school offered two distinctive interscholastic activities. These activities included a cheer team and a pom squad.

Interestingly, of the three participating schools within this study, this school was the most limited in physical facilities available to students. Facilities in this school included only one full sized gymnasium. Of the three participating schools, this school was the only school that did not have 2 full size gymnasiums. Further, all three schools had fitness centers where the students could work out both on their own time and during their physical education class time. However, this school’s fitness center was being
developed at the time of the study and had the least amount of space and equipment of the three participating schools.

**Second Highest Enrollment School**

This school had the second highest enrollment in grade 11 elective physical education in the Saskatoon Public School Division with 48% of grade 11 students enrolled in physical education in the 2007-2008 school year. The population of this school was 940 students. The facilities at this school include 2 full size gymnasiums and a fitness center. Of the three participating schools, this school had a fitness center with the greatest variety of equipment and the most modern equipment.

**Lowest Enrollment School**

The lowest enrollment school had 33% of grade 11 students enrolled in physical education in the 2007-2008 school year. This school was the largest school in this study with a population of almost 1500 students and was the largest school in the Saskatoon Public School Division. Among the 3 participating schools, this school had the most differences in academic programming in comparison to the high enrollment schools. This school was a comprehensive school and taught a comprehensive range of subjects across the academic and vocational spectrum. The comprehensive nature allowed students to explore a vast array of courses in preparation for post-secondary studies or direct entry into the world of work (i.e., welding, construction). A full academic program similar to the other two schools in this study was offered. However, this school offered the most elective course choices. These unique elective courses included welding, machining, mechanics, mechanics and automotive, engineering, aviation studies, and electronics.
Two distinctive offerings at this school included a high performance physical education course and a hockey program. The high performance physical education course was offered to female and male grade 11 students. The purpose of this course was to promote healthy lifestyles by focusing on the training aspect of sport. Training sessions included: weight training, tours to fitness centers, plyometrics, core strength, flexibility, biking, swimming, scuba diving, martial arts, wall climbing, fitness classes, and cross training from a number of different sports. This course was intended for athletes who wanted to train hard for their sport and students who wanted to train hard just to be fit. In the 2007-2008 school year 4.9% of grade 11 students were enrolled. This course provided students with the development and improvement of their hockey skills. Skills within this course included skating, passing, puck handling, and shooting skills. In 2007-2008 school year, 6.6% of the grade 11 students were enrolled in the hockey program.

A wide range of interscholastic sport teams available at this school were consistent with the offerings of the other two schools within this study. However, similar to the high enrollment school, this school had pom squad as an additional extracurricular activity. The facilities at this school were similar to the second highest enrollment school, with two full-sized gymnasiums and a well-developed fitness center.
Appendix E

Enrollment in Elective Physical Education Among Adolescents

Name: _______________________

School: ______________________

Your participation in this project is completely voluntary. The questionnaire will take about 5 minutes to complete. Please read each question carefully and complete it to the best of your ability. There are no right or wrong answers. You are free to not answer any question. You can withdraw from this project at any time without consequence.

Your responses will be kept strictly confidential. Thank you for your participation.

Do you intend to enroll in Physical Education in your grade 11 year?

□ Yes    □ Maybe    □ No

DEMOGRAPHICS

Are you a member of a sports team where practice and/or competition is mandatory, meaning you have to be there? This would include your school’s sports team or a community sports team.

Examples would include, but are not limited to, being a member of your school’s basketball team, badminton team, volleyball team etc., or your community’s soccer team, hockey team, football team, softball team etc.

□ Yes    □ No

Overall Academic Average in Grade 9: _____________

Ethnicity (please check ✓ one):

White    Chinese    Black    Filipino    Latin American
Southeast Asian    South Asian    West Asian    North American Indian,
Métis, or Inuit    Arab    Other
In an average year how much money does your family make? (please check ✓ one):

- Less than $30,000
- $30,000 - $40,000
- $40,000 - $50,000
- $50,000 - $60,000
- $60,000 - $70,000
- $70,000 - $80,000
- $80,000 - $90,000
- More than $90,000

What is the highest level of schooling your mother has completed? (please check ✓ one):

- Less than high school
- Finished high school
- Trade school (ex. mechanic, technician)
- Some University
- University degree
- Do not know/Doesn’t apply
- Other (please specify): _____________

What is the highest level of schooling your father has completed? (please check ✓ one):

- Less than high school
- Finished high school
- Trade school (ex. mechanic, technician)
- Some University
- University degree
- Do not know/Doesn’t apply
- Other (please specify): _____________
Appendix F

International Physical Activity Questionnaire (IPAQ)

INTERNATIONAL PHYSICAL ACTIVITY QUESTIONNAIRE

We are interested in finding out about the kinds of physical activities that people do as part of their everyday lives. The questions will ask you about the time you spent being physically active in the last 7 days. Please answer each question even if you do not consider yourself to be an active person. Please think about the activities you do at work, as part of your house and yard work, to get from place to place, and in your spare time for recreation, exercise or sport.

Think about all the vigorous activities that you did in the last 7 days. Vigorous physical activities refer to activities that take hard physical effort and make you breathe much harder than normal. Think only about those physical activities that you did for at least 10 minutes at a time.

1. During the last 7 days, on how many days did you do vigorous physical activities like heavy lifting, digging, aerobics, or fast bicycling?

   ________ days per week
   □ No vigorous physical activities  ➔ Skip to question 3

2. How much time did you usually spend doing vigorous physical activities on one of those days?

   ________ hours per day
   ________ minutes per day
   □ Don’t know/Not sure

Think about all the moderate activities that you did in the last 7 days. Moderate activities refer to activities that take moderate physical effort and make you breathe somewhat harder than normal. Think only about those physical activities that you did for at least 10 minutes at a time.
3. During the last 7 days, on how many days did you do moderate physical activities like carrying light loads, bicycling at a regular pace, or doubles tennis? Do not include walking.

_________ days per week

☐ No moderate physical activities → Skip to question 5

4. How much time did you usually spend doing moderate physical activities on one of those days?

_________ hours per day

_________ minutes per day

☐ Don’t know/Not sure

Think about the time you spent walking in the last 7 days. This includes at work and at home, walking to travel from place to place, and any other walking that you might do solely for recreation, sport, exercise, or leisure.

5. During the last 7 days, on how many days did you walk for at least 10 minutes at a time?

_________ days per week

☐ No walking → Skip to question 7

6. How much time did you usually spend walking on one of those days?

_________ hours per day

_________ minutes per day

☐ Don’t know/Not sure

The last question is about the time you spent sitting on weekdays during the last 7 days. Include time spent at work, at home, while doing course work and during leisure time. This may include time spent sitting at a desk, visiting friends, reading, or sitting or lying down to watch television.
7. During the last 7 days, how much time did you spend sitting on a week day?

__________ hours per day

__________ minutes per day

☐ Don’t know/Not sure

8. Were you sick last week, or did anything prevent you from doing your normal physical activities?

☐ Yes

☐ No

If yes, what prevented you?

__________________________________________
Appendix G

Guiding Questions

Focus Group Interview Questions:
Students who DO NOT INTEND to enroll in grade 11 physical education.

(Prompts are in italics with sub prompts indented 5 spaces)

Introduction:
Thanks for talking to us today
A few things about what will happen:
  • I have some questions for you; there are not right or wrong answers
  • The tape recorder can be shut off at any time
  • Only a transcriber and a research assistant will listen to the tape
  • You will be given a pseudonym
  • Do you have any questions/concerns before we start? Feel free to ask any questions as we go along if something is unclear.

Preamble: The purpose of this study is to find out why students choose to enroll or not enroll in grade 11 physical education. The purpose of this discussion today is to give you a chance to give us your thoughts on why you do not intend to enroll in grade 11 physical education.

We will start with a few questions about each of you and then will give you a chance to tell us why you do not intend enroll in grade 11 physical education.
ABOUT YOU . . .

Some basic questions
1. What is your name?

2. How old are you?

3. How long have you attended this school?

You and physical activity
1. How many days a week are you physically active?

   What do you do?

   For how long?

2. How active are you compared to your friends?

   How active are you compared to grade 9?

3. How important is being physically active to you?

   If it is important, why?

   What do you get out of it?

   Have you always been active? Why or Why not?

   If it is not important, why not?

   Has there ever been a time in your life when physical activity was important?

4. What are your thoughts on physical activity both in and out of school?

   What kind of physical activity do you like to do/not like to do?

   Why do you like/dislike these kinds of activities?

   How do these activities make you feel?
Ecological Model - Student who do NOT intend to enroll in grade 11

PHYSICAL EDUCATION

Preamble: We know that you do not intend to enroll in physical education next year. We would like you to tell us why you chose not to participate in grade 11 physical education. We are going to ask you four main questions about yourself, others, your school, and your community, that may or may not have influenced your decision not to enroll in grade 11 physical education.

1. Is there anything about you that influenced your decision not to enroll in grade 11 physical education? (Intrapersonal)

   Why do you think this influenced your decision?

2. Did anyone do or say anything that stopped you from choosing to enroll in grade 11 physical education? (Interpersonal)

   Do your parent(s)/guardian support your decision?

   Why do you think your parents feel this way?

   Did your friends influence your decision? How?

   Did the majority of your friends make the same decisions as you?

   Did any teachers influence your decision? How?

   Did anyone else other than family, friends, and/or teachers influence your decision? If yes, who? How?

3. Is there anything about your school that stopped you from choosing to enroll in grade 11 physical education? (Institutional)

   If so, how did this influence your decision?

   Did your previous physical education classes (i.e., grade 9 physical education) influence your decision? How?
4. Is there anything about your community (the area around your home and school) that stopped you from choosing to enroll in grade 11 physical education? (Community)

   If so, how did this influence your decision?

   Are you active within your community?
   If yes, what kind of activities do you participate in?
   If no, why not?

   Do you use your community’s physical activity facilities (i.e., hockey rink, fitness facility)?

5. Were there any facilitators or anything that was encouraging you to enroll in grade 11 physical education?

   If so, what were they?

   How did this influence your decision to enroll?

   Considering these facilitators, why do you still intend not to enroll in grade 11 physical education?

6. Is there anything else that has stopped you from choosing to enroll in grade 11 physical education that we have not talked about?

   If so, what else influenced your decision?

7. How sure are you that you will follow through with your intention not to enroll in grade 11 physical education?

   What would happen that might make you change your mind?
   Why would this make you change your mind?
Appendix H

Guiding Questions

Focus Group Interview Questions
Students who INTEND to enroll in grade 11 physical education

(Prompts are in italics with sub prompts indented 5 spaces)

Introduction:

Thanks for talking to us today
A few things about what will happen:
• I have some questions for you; there are not right or wrong answers
• The tape recorder can be shut off at any time
• Only a transcriber and a research assistant will listen to the tape
• You will be given a pseudonym
• Do you have any questions/concerns before we start? Feel free to ask any questions as we go along if something is unclear.

Preamble: The purpose of this study is to find out why students choose to enroll or not enroll in grade 11 physical education. The purpose of this discussion today is to give you a chance to give us your thoughts on why you intend to enroll in grade 11 physical education.

We will start with a few questions about each of you and then will give you a chance to tell us why you intend to enroll in grade 11 physical education.
ABOUT YOU . . .

Some basic questions
4. What is your name?
5. How old are you?
6. How long have you attended this school?

You and physical activity
1. How many days a week are you physically active?
   What do you do?
   For how long?
2. How active are you compared to your friends?
   How active are you compared to grade 9?
3. How important is being physically active to you?
   If it is important, why?
   What do you get out of it?
   Have you always been active? Why or Why not?
   If it is not important, why not?
   Has there ever been a time in your life when physical activity was important?
4. What are your thoughts on physical activity both in and out of school?
   What kind of physical activity do you like to do/not like to do?
   Why do you like/dislike these kinds of activities?
   How do these activities make you feel?
**Ecological Model**- Student who *intend* to enroll in grade 11 PHYSICAL EDUCATION

Preamble: We know that you intend to enroll in physical education next year. We would like you to tell us why you choose to participate in grade 11 physical education. We are going to ask you four main questions about yourself, others, your school, and your community, that may or may not have influenced your decision to enroll in grade 11 physical education.

1. **Is there anything about you that influenced your decision to enroll in grade 11 physical education? (Intrapersonal)**

   *Why do you think this influenced your decision?*

2. **Did anyone do or say anything that helped you in your decision to enroll in grade 11 physical education? (Interpersonal)**

   *Do your parent(s)/guardian support your decision?*

   *Why do you think your parents feel this way?*

   *Did your friends influence your decision? How?*

   *Did the majority of your friends make the same decisions as you?*

   *Did any teachers influence your decision? How?*

   *Did anyone else other than family, friends, and/or teachers influence your decision? If yes, who? How?*

3. **Is there anything about your school that helped you in your decision to enroll in grade 11 physical education? (Institutional)**

   *If so, how did this influence your decision?*

   *Did your previous physical education classes (i.e., grade 9 physical education) influence your decision? How?*
4. **Is there anything about your community (the area around your home and school) that helped you in your decision to enroll in grade 11 physical education? (Community)**

   *If so, how did this influence your decision?*

   *Are you active within your community?*
   *If yes, what kind of activities do you participate in?*
   *If no, why not?*

   *Do you use your community’s physical activity facilities (i.e., hockey rink, fitness facility)?*

5. **Were there any barriers or obstacles that you overcame in order to make your decision to enroll in grade 11 physical education?**

   *If so, what were these barriers?*
   *How did you overcome them?*

6. **Is there anything else that has influenced your decision to enroll in grade 11 physical education that we have not talked about?**

   *If so, what else influenced your decision?*

7. **How sure are you that you will follow through will your intention to enroll in grade 11 physical education?**

   *What would happen that might make you change your mind?*
   *Why would this make you change your mind?*
## Perceived Barriers and Facilitators

### Appendix I

### Data Analysis Charts

#### Barriers to Enrollment Among Female Adolescents

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<th>Interpersonal</th>
<th>Institutional</th>
<th>Community</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Past experiences in physical education</td>
<td>• Friends are not enrolling</td>
<td>• Taking other electives</td>
<td>• Can be physically active in the community</td>
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<tr>
<td>• Do not like physical activity</td>
<td>• Lack of parental support</td>
<td>• Rather have a spare</td>
<td>• Can be active on their own time</td>
</tr>
<tr>
<td>• Not confident in physical activity</td>
<td>• Do not like the people enrolling</td>
<td>• Find no value in physical activity course content</td>
<td>• Can be active in the absence of others</td>
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<td>• Do not like co-ed physical education</td>
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<td>• Do not like team sports</td>
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</tr>
<tr>
<td>• Do not like participating in physical activity in front of others</td>
<td></td>
<td>• Do not like running</td>
<td></td>
</tr>
<tr>
<td>• Do not like competition</td>
<td></td>
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</tr>
<tr>
<td>• Self-conscious doing physical activity</td>
<td></td>
<td></td>
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<tr>
<td>• Do not like trying new activities</td>
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#### Similarities of Perceived Barriers Among Female Adolescents Within the High Enrollment School and the Low Enrollment School

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<th>Interpersonal</th>
<th>Institutional</th>
<th>Community</th>
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</thead>
<tbody>
<tr>
<td>• Do not like participating in physical activity in front of others</td>
<td>• Friends not enrolling</td>
<td>• Scheduling</td>
<td>• Can be physically active in the community</td>
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<td>• Self-conscious about doing physical activity</td>
<td>• Lack of parental support</td>
<td>• Need to take classes for post-secondary education</td>
<td>• Can be active on their own time</td>
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<tr>
<td>• Not confident in physical activity</td>
<td>• Do not like the people enrolling</td>
<td>• Preference for other classes</td>
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<tr>
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<td>• Rather take a spare</td>
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<td></td>
<td></td>
<td>• Do not like course</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Do not like team sports</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Do not like running</td>
<td></td>
</tr>
</tbody>
</table>

#### Differences of Perceived Barriers Among Female Adolescents Between the High Enrollment School and the Low Enrollment School

<table>
<thead>
<tr>
<th>Intrapersonal</th>
<th>Interpersonal</th>
<th>Institutional</th>
<th>Community</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>High Enrollment School</strong></td>
<td>• Do not like competition</td>
<td>• Find course of no value- not useful</td>
<td>• Can be physically active in the community</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Do not like team sports</td>
<td>• Can be active on their own time</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Do not like grade 10 physical education</td>
<td>• Can be active in the absence of others</td>
</tr>
<tr>
<td><strong>Low Enrollment School</strong></td>
<td>• Do not like trying new activities</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Do not like the activities in course</td>
<td></td>
</tr>
</tbody>
</table>
## Perceived Barriers and Facilitators

### Facilitators to Enrollment Among Female Adolescents

<table>
<thead>
<tr>
<th>Intrapersonal</th>
<th>Interpersonal</th>
<th>Institutional</th>
<th>Community</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Like physical activity and being active</td>
<td>• Parental support</td>
<td>• Course content</td>
<td>• Active in the community which promotes enrollment</td>
</tr>
<tr>
<td>• Likes competition</td>
<td>• Coach and teammates encouraged enrollment</td>
<td>• Different Activities</td>
<td></td>
</tr>
<tr>
<td>• Like to learn and try new activities</td>
<td>• Family and peers, who have taken the course previously, encouraged enrollment</td>
<td>• Course does not have a lot of homework</td>
<td></td>
</tr>
<tr>
<td>• Like sports</td>
<td></td>
<td>• Like a break from the classroom</td>
<td></td>
</tr>
<tr>
<td>• Highly confident in sports and physical activity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Good way to get in physical activity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Lazy- forces you to be physically active</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Keeps you active and fit</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Similarities of Perceived Facilitators Among Female Adolescents Within the High Enrollment School and the Low Enrollment School

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<th>Community</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Like being active</td>
<td>• Parents support and assume enrollment</td>
<td>• Course content</td>
<td>• Active in the community which promotes enrollment</td>
</tr>
<tr>
<td>• Like competition</td>
<td>• Family and peers who have taken the course previously, encouraged enrollment</td>
<td>• Like the break from the classroom</td>
<td></td>
</tr>
<tr>
<td>• Fun to learn new activities</td>
<td></td>
<td>• Course does not have a lot of homework</td>
<td></td>
</tr>
<tr>
<td>• Like sports</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Differences of Perceived Facilitators Among Female Adolescents Between the High Enrollment School and the Low Enrollment School

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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>• Highly confident in sports and physical activity</td>
<td>*</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Low Enrollment School</th>
<th>Intrapersonal</th>
<th>Interpersonal</th>
<th>Institutional</th>
<th>Community</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Good way to get physical activity into the day as don’t always have time</td>
<td>• Influenced by coach and teammates</td>
<td>*</td>
<td>* Read about the course in the course selection guide</td>
<td></td>
</tr>
<tr>
<td>• Lazy- physical education makes you be physically active</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Perceived Barriers and Facilitators**

### Barriers to Enrollment Among Male Adolescents

<table>
<thead>
<tr>
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<th>Community</th>
</tr>
</thead>
</table>
| • No knowledge about the course  
• Do not value the course  
• Do not like getting tired during school  
• Active outside of school  | • Parents encourage other classes  
• Parents support their decision | • No room in schedule  
• Course is pointless  
• Other classes are more important  
• Would rather take other elective classes  
• Do not like that the course goes over lunch  
• Would rather take a spare  
• Do not like team sports  
• Have preference for other activities |

### Similarities of Perceived Barriers Among Male Adolescents Within the High Enrollment School and the Low Enrollment School

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</tr>
</thead>
</table>
| • Parents support decision  
• Parents discourage enrollment and encourage other classes | • No have room in schedule  
• Need to fit in ‘academic’ classes  
• Would rather take other elective classes  
• Would rather take a spare  
• Do not like the course goes over lunch | | |

### Differences of Perceived Barriers Among Male Adolescents Between the High Enrollment School and the Low Enrollment School

<table>
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<tr>
<th>High Enrollment School</th>
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</tr>
</thead>
</table>
| • No knowledge about the course  
• Do not value the course  
• Active outside of school  
• Do not like being active during school hours | | | | | • Do not like team sports |
### Perceived Barriers and Facilitators

#### Facilitators to Enrollment Among Male Adolescents

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<tbody>
<tr>
<td>• Confident in physical activity&lt;br&gt;• Enjoys physical activity&lt;br&gt;• Enjoys physical education&lt;br&gt;• Competitive&lt;br&gt;• Successful in physical education&lt;br&gt;• Makes school more fun&lt;br&gt;• Like to try new activities&lt;br&gt;• Likes sports&lt;br&gt;• Likes the challenge of the new activities</td>
<td>• Parents support decision&lt;br&gt;• Parents encourage enrollment&lt;br&gt;• Teacher encouraged enrollment&lt;br&gt;• Coaches encouraged enrollment&lt;br&gt;• Friends, teammates, and siblings who have previously taken the course encouraged enrollment</td>
<td>• Likes course content&lt;br&gt;• Finds course valuable&lt;br&gt;• Break from other classes&lt;br&gt;• Like the new activities</td>
<td>• Physical education course has different activities than their community</td>
</tr>
</tbody>
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#### Similarities of Perceived Facilitators Among Male Adolescents Within the High Enrollment School and the Low Enrollment School

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<tbody>
<tr>
<td>• Confident in physical activity&lt;br&gt;• Makes school more fun&lt;br&gt;• Like to try new challenging activities&lt;br&gt;• Like sports&lt;br&gt;• Enjoys physical activity&lt;br&gt;• Competitive&lt;br&gt;• Enjoys physical education&lt;br&gt;• Successful in physical education</td>
<td>• Parents support decision&lt;br&gt;• Parents encouraging enrollment&lt;br&gt;• Friends and siblings who have previously taken the course encouraged enrollment</td>
<td>• Likes the course content&lt;br&gt;• Finds course valuable&lt;br&gt;• Break from other classes&lt;br&gt;• Likes new activities</td>
<td>• Physical education course has different activities than their community</td>
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</thead>
<tbody>
<tr>
<td>• Teacher influenced decision&lt;br&gt;• Teammates who have previously taken the course encouraged enrollment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>• Coach encouraged enrollment</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>
Appendix J

Activity Levels (IPAQ)

Participants Intending to Enroll
- High = 74%
- Moderate = 24%
- Low = 2%

Participants Not Intending to Enroll
- High = 53%
- Moderate = 38%
- Low = 9%

High Enrollment Schools - Enrolled
- High = 78%
- Moderate = 18%
- Low = 4%

High Enrollment Schools - Not Enrolled
- High = 63%
- Moderate = 25%
- Low = 12%

Low Enrollment School - Enrolled
- High = 68%
- Moderate = 32%
- Low = 0%

Low Enrollment School - Not Enrolled
- High = 46%
- Moderate = 46%
- Low = 8%

Females Enrolled
- High = 43%
- Moderate = 57%
- Low = 0%

Females Not Enrolled
- High = 59%
- Moderate = 29%
- Low = 2%

Males Enrolled
- High = 75%
- Moderate = 21%
- Low = 4%

Males Not Enrolled
- High = 73%
- Moderate = 27%
- Low = 0%