

**COLLABORATING WITH ADOLESCENT GIRLS TO CO-CONSTRUCT PHYSICAL EDUCATION
CURRICULUM: AN ACTION RESEARCH APPROACH**

by

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Abstract

This action research project examines the extent to which providing adolescent girls with choice of curricular content and input into course design affects their enjoyment and participation in physical education. It also examines student preferences regarding activities based on personal health and wellness compared to the traditional sport-based curriculum many schools offer. Following an initial questionnaire, students in my grade ten physical education class were offered a series of introductory lessons to individual or partner activities not normally offered in the present curriculum, such as yoga and Zumba. Students set personal goals to meet their own needs and chose activities to participate in that addressed their needs. At the end of the intervention it was found that having an input and choice was motivational for high school girls. The study was able to show that when students are heard and their input is treated as valuable, they enjoy physical education. Insights gained in this study can be used by teachers and researchers to look for new ways to engage high school girls in physical education.

Keywords: student choice, student voice, physical education, adolescent girls, curriculum

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Chapter 1

Introduction

Students' voices have been largely absent from decision-making processes regarding the conceptualization, implementation and evaluation of their PE curricular experiences (Enright & O'Sullivan, 2010, p. 203).

The purpose of this action research study was to explore the extent to which providing students with choice of curricular content affects their enjoyment of and participation in physical education. I employed an action research approach, using data generated from my own lesson planning and professional journals to understand how empowering adolescent female students to make curricular decisions can influence their enjoyment and participation in physical education. In addition, engaging in this study helped to reframe my teaching practice. The study also examined student preferences regarding activities based on personal health and wellness compared to the traditional multi-activity, sport-based curriculum that many schools offer. Despite the fact that teachers teach physical education for students, Enright and O'Sullivan (2010) had it right: currently, student input is often not part of teachers' decision making regarding course design, and this issue has significant implications for how students experience and find meaning in physical education.

Rationale for Study

Canadian physical education programs have a mandated goal to help students develop the skills, attitudes and knowledge they require to lead physically active lifestyles over their

lifespan (Pangrazi & Gibbons, 2009). Despite the important educational aims of physical education, there is evidence that many students do not find the subject meaningful or relevant to their present or future lives (Kirk, 2010). Such claims are supported by considering enrolment in physical education when it becomes an optional credit (usually high school); the number of students who take physical education declines drastically. For example, a survey conducted in Ontario of over 13,000 students showed a decline of participation in physical education enrollment from 70.3% in 1999 to 60.3% in 2005 (Faulkner, et al., 2007). This pattern is particularly pronounced for female students, whose participation beyond the years during which physical education is required is significantly lower than the participation rates by male students of the same age. For example, in British Columbia, fewer than 10% of females continue to enrol in physical education classes beyond the required grade 10 credit, compared to 20-25% of male students (Deacon, 2001).

The reasons for the decline in girls' enrolment in physical education are complex; however, there are several indicators that may influence their decisions to continue with the subject. For example, Gibbons (2009) conducted a study of 32 senior high school physical education classes in British Columbia to determine why some schools were able to maintain a high level of female participation while others were not. For those schools with high levels of female participation, students had input into the course design, there was an option to choose all-female classes where they felt safe and free from harassment from boys, and there was a positive and inclusive atmosphere that focused on participation rather than winning or losing (Gibbons, 2009). In summary, girls wanted to feel safe and included, they did not want other people to be watching them and they enjoyed being in a class with other students who have a

similar interest and skill level. While these factors were results of one study, they mirror findings of other researchers who have explored similar issues in different contexts (cf. Wright, 1997).

Research Context

I am a physical education teacher at Great Lakes High School (GLHS), the largest high school on Prince Edward Island. There are just over 1000 students enrolled in this school. The students are mainly Caucasian, with about 10% being from other races/ethnicities such as Asian (specifically Chinese, Japanese, and Korean) and Middle Eastern. Many students from the school live in the rural areas surrounding Charlottetown and come mainly from middle class families.

All students in grade ten are expected to take physical education in order to graduate. Despite not being a mandated requirement of the provincial curriculum, this graduation requirement is a commitment made by the school administration that shows they value physical activity and fitness. Physical education in grades 11 and 12 is offered as an elective and is co-educational.

The gymnasium at GLHS is one of the best and well maintained on the Island; however, because of the large number of students at the school, most classes share the gym with another class. For example, the grade ten classes are segregated into girls and boys classes. Often one class will share the gym with another class (of a different gender) but they each participate in their own program. If the class is playing volleyball for example, both classes will be playing volleyball but only against students in their own class: girls play against girls and boys

play against boys. The grade ten curriculum is currently being rewritten on Prince Edward Island. The present curriculum is sport-based, with emphasis on fitness through participation. During a school year of physical education, students typically play games of soccer, volleyball, basketball, badminton, football, archery, circuit and weight training, Aussie Rules football, and goal ball. This works well for some students but not for all.

From informal discussions with students, it was evident that there was a group of students who would rather have more individual activities to participate in at a pace that is appropriate for them. The curriculum encourages teachers to evaluate students based on their effort, attitude and participation in class. There is no evaluation of skill performance as no skill tests are given. There are, however, two different fitness tests, (the Beep test and Cooper's 12 minute run), that go toward class effort grades. The main purpose of the fitness tests, however, is to give the students some idea of their own levels of cardiovascular fitness.

Each year I teach five classes of grade ten physical education and one class of grade eleven and twelve coeducational physical education. A benefit of this set up is that I get to know the entire group of grade ten girls in the school: their strengths, weaknesses, likes, dislikes and preferences in physical education. There is a huge range of interests and abilities in grade ten girls. I find there are girls who hate physical education and those who love it; there are also others who are somewhere in between. This range may be based on previous experiences or where these girls find themselves right now, physically, socially or emotionally.

A point of continual disappointment for me is that every year some girls have a very low level of fitness. At the end of the semester, I would expect to see an improvement in student

fitness level based on physical activities that they have taken part in throughout the term. From my assessment and evaluation of student learning and improvement, after five months of having physical education for 80 minutes each day, these same students often show very little improvement on the final fitness tests. This “hunch” is confirmed by data from the 2010-2011 School Health Action, Planning and Evaluation System (SHAPES-PEI) survey (Munro-Bernard, 2011). The survey was conducted to provide a school-based, province wide survey of youth health behaviours such as physical activity, nutrition, mental fitness and tobacco use.

Despite the value placed on physical activity in GLHS, data from the survey showed that 74% of all the students at GLHS were not meeting current physical activity guidelines (Munro-Bernard, 2011). This study also found that 12% of the students at Great Lakes do not participate in any activity either at school or outside of school. Only 38% of students perform in some type of physical activity outside of physical education class such as intramurals, school sport teams, other sport teams or individual activities. Further, 78% of students who had three or more active friends meet Physical Activity (PA) guidelines while only 6% of those students who have no active friends meet these PA guidelines (Munro-Bernard, 2011). These data suggest that while physical activity may be valued by the school, students are not finding similar value—at least in terms of the extent to which they embody these values inside and outside of the school. As physical education has been identified as a vehicle through which to encourage students to come to value physical activity, considering the physical education experiences of students at GLHS is warranted. As such I keep returning to the same question: What is it that holds students back—particularly girls—from participating at a level that will improve their personal fitness.

An important contributing factor to students' experiences of school concerns specific subject matter curriculum. A study by Gibbons and Humbert (2008) looked to determine what occurred in the junior high school years to cause so many girls to opt out of high school physical education. They found that many girls as young as grade six and seven felt that the curriculum offered mainly team based sports that had no relevance to them at present or in the future. They commented that the teacher chose activities that the boys preferred. Many also felt there was pressure to look good and to be popular. Although they understood the value of physical activity, the existing programs were not encouraging them to be more active.

Like students described in other studies (Gibbons and Humbert, 2008), students at Great Lakes come to the grade ten class with preconceived notions about physical education and about their own physical fitness. Depending on their own personal experiences in elementary school and junior high, they may love going to physical education and enjoy everything about it; from team games to individual competitions. Others find physical education a terrible part of the day, another thing about school that they need to get through. They may not like getting changed or they may not want to work up a sweat or they may even feel self-conscious and uncomfortable in their gym clothes. There are still others who are somewhere in between on this love–hate continuum. They do what is required to get a good grade but have no plans to ever be physically active. Those who fall on the middle to lower end of the continuum are the people of concern of the study. The study looked to trigger something within this bracket of people by identifying why these girls chose not to be active in physical education. What are the triggers that will cause these girls to build more activity into their lives?

Purpose of the Study

The study was conducted over one school semester and took place at GLHS involving one grade ten girls' class that I taught. The class met every afternoon during the term for 80 minutes. The time of the class alternated each day between starting at 12:30 or 1:55pm. The reason this class was identified as one suitable to implement a curricular innovation was due to it being the only class at Great Lakes during the semester that did not share the gym with another class. This allowed the class freedom to explore various fitness options without distractions or interruptions.

This study began with the assumption that enjoyment of physical education affects participation both in required and elective courses. This assumption is supported by Silverman and Subramanian (1999), who found that attitude, affects participation in physical education. One of the overarching elements of physical education that has been identified in affecting girls' attitudes towards physical education is the course content. Specifically, team sports-based physical education has been recognized as leading to disengagement in physical education for many girls (Carlson, 1995, Ennis, 1999, Gibbons & Humbert, 2008). Given these findings, this study considered the extent to which an alternative style of physical education would appeal to the students more than the traditional course offerings. Specifically, I looked to involve students in the curricular decision making process and examine the challenges I faced in facilitating this involvement. For example, I sought to address the extent to which students would prefer an individualized program (perhaps including individual sports, classes like spinning, yoga, dance or aerobics, similar to those students may experience at a gym) or a

specialized focus (such as weight training or running on a treadmill), as opposed to a season dictated, sport-based program we see in many physical education programs.

I am using an action research approach to this study because I recognize that there is a problem for some students in the physical education program. An action research approach will allow me to generate solutions to these problems I see within my classes. Through my review of the literature, observations of my class and input from students through survey questionnaires and their journal writing I hope to come up with a program where all students are engaged and see the value of physical education and may want to be active for a lifetime.

The results of this study provide evidence and resources for physical education planners, curriculum designers, and teachers as they seek to create programs and courses that appeal to the teenaged population. More importantly, it provides teachers of grade ten girls to offer a program that aims to meet the needs of all of their students.

Research Questions

The research was guided by the following main research question:

- *How, and to what extent, do involving female students in curricular decisions affect their involvement, engagement and participation in high school physical education?*

The following sub-questions provided further guidance in how I conducted the study:

- *From my perspective, do students put forth more effort in individual or partner activities than the traditional sport/team based activities? What motivates girls to be active?*

Chapter 2

Literature Review

Introduction

This study sought to determine the extent to which involving students in the decision making process will affect their engagement in high school physical education. In implementing this curricular innovation, I document and describe the challenges I faced in involving students in curricular decision-making processes. The purpose of this literature review is to examine studies that have been conducted concerning high school girls' involvement in physical education. From the literature, I was able to understand specific features of physical education programs that promote high female participation and engagement and I used those findings to inform the design and implementation of the research project.

The Value of Physical Education and Developing a Physically Active Lifestyle

The benefits of regular exercise are well known. Canada's Physical Activity Guide for Healthy Living states that physical activity helps healthy growth and development, makes us stronger, gives us energy, decreases stress, prevents chronic diseases like cancer, Type 2 diabetes and heart disease and prolongs independence as we get older (Ministry of Public Health, 2011). If students recognize this at a young age and can develop the skills, knowledge and attitudes necessary to live a healthy, active lifestyle, they will likely carry these values into their adult life. Therefore, as educators, we must help students develop the skills that enable them to lead such a lifestyle for their entire lifetime.

Fitness in Canadian Youth

Despite the reported benefits of leading a healthy active lifestyle, evidence suggests that few young Canadians are engaged in the recommended levels of healthy behaviours. The Canadian Fitness and Lifestyle Research Institute (CFLRI) (2011) cites data from the Canadian Health Measures Survey, stating that only 4% of female children and youth, aged 12 – 21, participate in 60 minutes of vigorous physical activity each day. Even when compared to the similarly low rate of 9% for male children and youth (CFLRI, 2011), these data are cause for concern.

In chapter one, I discussed findings from the School Health Action Planning and Evaluation System (SHAPES-PEI) study (Munro-Bernard, 2011) which looks to identify trends in mental fitness, physical activity, healthy eating and tobacco use at schools across the island. This survey takes place every two years (2008/2009, 2010/2011). Of the 9000 students who participated in the most recent provincial study, 820 were from the school in which this research was conducted. Although the data from the SHAPES-PEI survey are more encouraging than the Pan-Canadian results reported by the CFLRI (2011), there are still quite low participation rates in physical activity with only 38% of students participating in some form of physical activity at school outside of physical education class, such as intramurals, school sport teams, community teams and individual activities (Munro-Bernard, 2010/2011). In light of these statistics, physical educators' might ask "Why is this happening?" and "What can I/we do to change it?" Recent research provides some clues as to what factors might lead to high or low participation/enrolment in high school physical education, especially for girls.

Factors Related to Girls' Enrolment and Participation in Physical Education

Researchers and physical educators have been trying to establish the factors that affect the enrolment and participation of girls in physical activity and physical education. For example, Dwyer et al.'s 2006 study entitled, "Adolescent Girls' Perceived Barriers to Participation in Physical Activity" sought to explain the reasons that teenage girls do not participate in physical activity. The researchers used seven focus groups to interview 73 young women in Toronto area. Issues such as competition, academic work-load, and body-centered issues all arose as reasons girls did not participate in physical activity that may apply to physical education as well (Dwyer et al., 2006). The study does point out that qualitative studies have shown that the perceived barriers faced by adolescent girls may be specific to the adolescent stage (Dwyer et al. 2006). If the girls can learn to navigate these barriers as young teens, they are certainly more likely to be able to navigate future similar barriers as they arise.

With specific reference to school-based physical education, boys and girls are educated in the same physical education system with the same curriculum. They are taught the fundamental skills, sport skills, and rules of the games, often in much the same way. More often than not, problems emerge with this "one-size-fits-all" approach (Kirk, 2010). The decline in adolescent girls' levels of physical activity may be explained by looking at the current and historical methods of teaching physical education.

Traditionally, physical education programs have focused on team games and competitions like soccer, basketball and volleyball (Hardman, 2008). In a worldwide study, Hardman (2008) found that 79% of global curriculum consisted of team and individual games

followed by track and field and gymnastics. Swimming, dance and outdoor activities only make up 13% of the curriculum allocated time (p.18). To some extent, this is the case at GLHS. If your skills are weak in the content areas that make up the bulk of the physical education curriculum, you look poorly compared to the more skilled classmates. This may cause a student to want to sit out or make jokes about the game (Ennis, 1996). The concept of a “girl-friendly” physical education curriculum has not yet entered many schools, but studies find that both choice of activity and interest in activity play a role in levels of participation for girls. While men and boys often prefer the competitive aggression many sports offer, girls and women tend to be more interested in social interaction and enjoyment (Lenskyj, 1994).

In order to develop a “girl-friendly” physical education sample unit or entire program, one must first understand the barriers adolescent females perceive when it comes to physical activity. This term girl-friendly was used by Felton et al. (2005) to describe programs that incorporate the following features: (1) students are physically active in class, (2) non-competitive activities are offered, (3) opportunities for gender separation are offered, (4) there is an emphasis on lifelong physical activity, (5) classes are fun and enjoyable, (6) appropriate instructional methods are used (e.g., small group work), and (7) behavioural skills for PE are taught. The presence or absence of these factors has been supported by findings from several studies.

For example, in trying to solve the problems schools are having with low participation rates by adolescent females in senior physical education classes, Gibbons (2009) conducted a study of the underlying themes of physical education programs that have successfully

maintained more than 50% female enrolment. Many of the questionnaires, syllabi and teacher interviews analyzed by Gibbons (2009) showed that students played a large role in determining the activities they would participate in during their physical education course. The courses focused on lifetime and individual physical activities that the young women would be able to partake in after leaving the course, as well as non-competitive activities. The study also examined students' explanations for their participation, another important aspect of the how and why the courses were successful. Gibbons found that student input in course design as well as the option of all female classes where students felt safe increased enrollment in physical education classes. Also, the study found that a positive and inclusive environment helped students if the focus was on participation rather than winning or losing. This article was very relevant to the study at hand as it proved useful in developing the questionnaire and evaluating the study group's activities compared to those in the study that display high enrolment rates (Gibbons, 2009).

Another study by Gibbons (2009) looked to help physical educators' foster intrinsic motivation with their female students. A wide range of curriculum actions and instructional strategies are needed. Gibbons identified six themes that were important in high enrollment of female students. These were (a) focus on lifetime physical activities, (b) student involvement in course development, (c) authentic assessment, (d) gender as a course design feature, (e) value added options, and (f) positive and respectful class environment. Gibbons (2009) noted that the more teachers build these into the course design, the more success the female students will have.

An important factor that has arisen time and again when assessing the curriculum of physical education programs and how young women respond to the program is that sport may not be beneficial to all students. Studying the effects of sport-based programs on girls' participation levels in physical education has yielded several common findings, suggesting that in many cases, sport-based physical education programs for girls often do more harm than good.

Sport-based Physical Education

The prominence of sport-based physical education programs has been identified as a particularly problematic aspect of girls' physical education experiences. There are many problems that arise in schools that only offer the sport-based curriculum, especially if they are coeducational. Sports programs in schools influence how young people see themselves in relation to other more skilled students and their ability to participate in that activity. For example, in some sports-based activities students are eliminated if they are weaker or less skilled—they may even be ridiculed by classmates for this (Ennis, 1996).

Several studies describe how the sport-based model of physical education has mainly catered to the interests of boys; so much so that physical education has been viewed purely as an opportunity to provide highly skilled males with opportunities for physical activities (Brown, 2000; Ennis, 1996; Olafson, 2002; Vertinsky, 1992). Given the focus on directing opportunities to males, many sport-based physical education programs make females feel that they are not skilled and are weak (Gibbons and Humbert, 2008). This leads to many girls actually being quite

weak because they opt to not participate in physical activity as a result of their negative experiences.

Ennis (1996) discusses how some girls feel about participation in sport based PE programs, identifying that some female students may change into physical activity attire for class but would rather sit on the sideline and watch than be forced to participate. Students feel that others are making comments about them or that they may get hit with the ball because they do not have enough skill to play. Ennis (2000) used the metaphor of disengaged girls as “canaries in a coal mine” (p. 119). Using this metaphor, she is making the point that if girls are not interested in the program it is a clear warning signs that something is wrong with the structures and delivery of the program.

In a study by Fisette (2013), seven girls from grades nine and ten were interviewed to identify the barriers that limit their participation in physical education. The students in the class studied were offered choices most days. For example, students could play a team game (such as soccer) or do fitness, which involved walking the track. The girls in this study felt that if they were not skilled at the sport that they would be ignored by the boys—both socially and in terms of becoming “engaged” in the game. As such, the girls mostly chose fitness, while no boys in the class chose fitness. Given these circumstances, three main findings reflected the barriers to girls’ participation. Specifically, girls felt that their participation in physical education involved: (a) Proving themselves to the boys, (b) Girls are supposed to do girly things and boys are supposed to do boy-ee things, and (c) There’s a risk of being embarrassed in front of the whole class. (p. 193).

Another study by Ennis (1999), examined how girls experiences and perceptions of physical education were less than satisfactory. To change this, a program was introduced titled *Sport for Peace* which was designed to encourage girls, promote ownership of the sport content, and create a cooperative environment between the girls and boys. Seven teachers and fifteen girls from three high schools were involved in the research. It was found that most sports are designed by men and most girls cannot compete equally with their male counterparts beyond the middle school years. To improve student ownership, both boys and girls were made captains and took responsibility for playing everyone equally and recording the results. Through the *Sport for Peace* program, both high and low skilled girls were able to improve their skills and develop positive feelings of sport efficacy creating a class community of respect which proved to be more conducive to participation and enjoyment (Ennis, 1999).

In my opinion, many of the problems are also historical in nature. People believe that because things were always done in a certain way, there is no reason to change. This is especially true because teachers often liked physical education the way it was when they were students. As such, they often see no reason to change or modify the curriculum for those few students who are unhappy. This is not the case at GLHS. New programs are initiated and old programs are often revised.

Student Input into Course Design

Researchers have generally found that female students view individual or partnered activities that focus on health, wellness, or participation. Another avenue through which participation might be affected concerns involving students in curricular decision-making

processes. Student input into the curriculum has been recognized as a way to make students more interested and engaged in the physical education program (Enright & O'Sullivan, 2010). In these scenarios, students are typically asked at the beginning of the program to have a say in the direction and design of the course content. They are offered choices and asked to select those activities in which they would be most interested in participating.

For example, in an effort to increase enrollment of girls in elective physical education classes, Gibbons used a health related personal fitness model (Gibbons & Gaul, 2004). The course used a combination of lessons in the classroom, gym, and community recreation facilities. Students were involved in the course design and implementation. Data were collected from student journals, group discussions, and questionnaires. Three themes emerged. These were respectful and supportive class environment, choice and variety in lifetime physical activities, and personal accomplishment. The results of this study showed that it is possible to involve students in the course design as well as encouraging support strategies to go along with it (Gibbons & Gaul, 2004).

To investigate how students' participation and investment in physical education may be affected by increased ownership over course content, Enright and O'Sullivan (2010) conducted a three year, Participatory Action Research (PAR) project with females aged 15 to 19. They focused on transforming the students' physical education curriculum by using the concept of negotiating physical education programs. The study had positive results with the 41 participants taking ownership of their learning by engaging in the decision making process. Students spent time writing their personal biography, creating a timeline of their own physical

activities, and creating a profile of their current participation levels. The data from the first phase of the study provided the basis for the next part of the study which involved having the girls choose activities that were individual and non-competitive with music that they could visualize participating in outside of school. They chose things like Pilates, aerobics, boxercise, and rock climbing because they had never done them before. After this they also discussed which curricular decisions should be negotiated. Together with guidance and support, they were able to rise successfully to the challenge of negotiating their own physical education curriculum.

Another point to be drawn from the literature is when offering students choice, there are things that are negotiable and things that are not negotiable (Enright & O'Sullivan, 2010). After a period of "taster sessions" (p. 210), students composed a list of things that they wanted to be involved in such as: what activities the class did, what music to listen to, and who should lead the warm up of the activity. The list of non-negotiable items included "bringing a change of clothes, which people come in to teach, and listen to the teachers because they listen to us" (p. 211).

Enright and O'Sullivan (2010) found that "the girls participated fully in their physical education classes because they wanted to" (p. 219), with many breakthroughs from students who went from non-participation or non-committed participation (for example, regularly forgetting their physical education uniform) to participating—even when they forgot parts of the whole of their uniform. A small part of this was attributed to the fact that there were *jobs* built into the negotiated curricula that could be completed by students who did not have the proper

attire for class, or who were injured. With these responsibilities, it was no longer a *free period* for those who chose not to participate in the physical activity of the day. The girls participating in the study also acknowledged an increase in participation and investment in the class and curriculum because they felt an ownership and respect for it (Enright & O'Sullivan, 2010).

Chapter Summary

The findings of the literature review show that student interest and input in the curriculum design play a large role in the level of participation. Especially meaningful for this study was the work of Sandra Gibbons and colleagues. Her investigations showed that offering female students' choice from a wide variety of activities in very structured environment improved participation. Students had responsibilities within the class and were treated with respect by other students and the teacher.

Many physical education teachers will tell you that it can be a struggle to entice adolescent females to participate in physical education classes, especially when the class is mandatory and/or co-educational. It is clear that some students are missing out on the opportunity to reap the benefits of exercise in their adolescent years and into their adult lives. The development of positive physical activity habits as teens can lead to continued healthy, active living throughout the lifespan. Therefore, it is essential that physical educators reach all students, where none fall through the cracks simply because the program was not suited to their needs or interests. The continued dedication of physical education teachers to find developmentally and age-appropriate, gender-friendly, social, creative activities from which

their students can choose to participate will be vital to increasing the sense of enjoyment students receive from participating in vigorous physical activity.

Chapter 3

Methodology

Introduction

A qualitative approach was used to address the overarching research question, which is: *How, and to what extent, do involving female students in curricular decisions affect their involvement, engagement, and participation in high school physical education?* To consider this question in depth, there were two main components of the action research study. In the first component, I sought to understand the underlying reasons for grade ten girls' participation in physical education. I wanted to understand whether, if given choices in the activities offered, their participation will improve. A second part of this project was to determine the extent to which some students' enjoyment in physical education would be influenced by offering activities that are individual or partner (such as personal fitness) as opposed to the team sport-based curriculum that most schools follow today (Gibbons, 2009).

This action research study was conducted at a local high school, with a class of female students currently enrolled in grade ten physical education serving as informants. As a teacher invested in offering meaningful opportunities for students to engage physical activity within and beyond the walls of the school, this action research project allowed me to examine issues related to the physical activity of some grade ten girls in our high school and to implement new activities that students might enjoy and participate or engage in at a moderate-vigorous level. I have observed a decline in girls' fitness levels over the years I have been teaching and am concerned about this. My intention was to use student feedback to inform the initial design and

implementation of the intervention. As with most forms of action research, the main focus of the project was to better understand ways in which I (as the teacher) could improve student learning. As such, it was necessary for me to continue to collect feedback from students (as I typically do in the day-to-day activities of being a teacher) as a part of the study. This was done in a manner that was respectful of the students' rights and thoughts. While student feedback informed the decisions I made during the project, the focus of the data collection and analysis was on the curricular planning process, its implementation, and its outcomes.

This chapter has nine sections. In the first section, I discuss what an action research approach is and why this approach is well suited for this study. Next, I outline the study context. The third section describes the participants, followed by a section on the Intervention which has two phases over a six week period. Then the data collection used for the study is explained followed by a section on the data analysis. Finally the delimitations, the limitations and the ethical issues are discussed.

An Action Research Approach

An action research study can be defined as a systematic planned approach to solving a professional problem. Bogdan and Biklen (2007) explain that the action research approach has been in use for a long time and teachers have used this approach dating back to 1950 (p. 243). Teachers use an action research approach when they recognize that there is a problem and then look for ways to solve it. Such an approach often involves the students and their involvement can occur in a variety of ways. For example, from active participant in the process

to “anonymous informant,” teachers use action research to bring about a change in the school setting which addresses an issue of concern in the working environment.

There are two types of action research projects. One is a political action research project where participants do research work to bring about social change in power. The other is participatory action research where an individual or group of individuals work to bring about a change in practices. For the purpose of this study, a participatory action research approach was used and I was the participant.

Although I am framing this as a participatory action research, it is important to recognize that there is still a political element involved in curricular decision-making processes, and as such, some readers might argue that this could be described as a political action research project. The reason for this is there are power structures in educational systems; typically that power lies with the teacher or school administrators. In this project the aim is to give students a voice (specifically female students in physical education) which may serve to improve their experiences and foster greater, more meaningful participation.

There are several reasons that I have framed this study a participatory action research project. First, participatory research can help to identify people within the physical education setting whose needs are currently not being met. Based on my own experiences teaching physical education, and as is evident from previous research, I felt that this is the case for many girls. Second, a participatory action research project can also be used to build an individual’s awareness of themselves professionally. Third, it can help to identify weaknesses in the current programs being offered. Fourth, an action research project can use individual input to shape

curriculum design. In this case, it was my own input into the curriculum design process that was being used; however, and most importantly for this project, my input was based on feedback that I was receiving from students who participated in the action research study. In a similar way, Enright and O'Sullivan (2010) were able to negotiate curriculum with high school girls resulting in an increase in participation and investment in the class and curriculum because the girls felt an ownership and respect for it (Enright & O'Sullivan, 2010). This study seeks to use student input to shape my ideas about how to design the project and any changes in curriculum that I would recommend following the analysis.

When collecting data for an action research project, participants are invited to contribute their feelings, experiences and thoughts on an issue. These data are then used in the development of the methodology of the project. This approach to research then continues to use participant input to shape the project and in the final analysis to rate the success of the project in regards to curriculum change. In summary, Bogdan and Biklen (2007) say that "Qualitative research skills can play a part in helping people to live in a world more compatible with their hopes by providing tangible information on what it is like now" (p. 244). In other words, this study incorporates my input, feelings, and abilities along with my students' to develop a physical education program that meets their needs.

Context

As described in Chapter 1, Great Lakes High School (GLHS) is the largest of three high schools in the city in which the study took place with just over 1000 students in grades 10 - 12. These students mostly live in the rural areas surrounding the city and most of them are bussed

in to the school. All students at this high school are required to take physical education in grade ten in order to graduate.

Participants

There are two categories of participants in this study. The first is me as the girls' physical education teacher. This is my ninth year of teaching at GLHS. During that time I have attended many workshops and conferences dealing with physical education and activity. I have worked to involve young people in physical activity both within the school setting and in extracurricular events. I have been involved in curriculum decision making and implementing at GLHS and have taken a course on curriculum through Memorial University of Newfoundland's Master of Physical Education program. I also coach volleyball, cross country running, basketball, badminton and track and field which allows me to work with a wide range of student athletes. I seek to establish a healthy active lifestyle as a way of life for my students and I promote this in the high school curriculum.

The second category of participants in this study is the students in my fourth period grade ten Physical education class. Students in grade ten physical education at GLHS are separated by gender but the program they receive is essentially the same. The class that participated in this study is an all-girls class with a wide range of physical and intellectual abilities. This class is made up of thirty-four students. One student has special needs and was assisted by an educational assistant. Two girls are Asian and the remainder are white Caucasian.

This class was chosen because it was the only class that I teach where I do not share the gym with another class. In this way there were less distractions and a variety of activities that could be offered without interfering with the existing program. There were strong relationships amongst the students that existed prior to the study being conducted. As such, the girls in this class had formed cliques; the cliques tended to have girls with similar personalities and several cliques had given names to the other groups, some of them not so nice. Students of similar interest seemed to stay together. For example, those who played school sports were in one group, those who held a feeling of indifference toward physical activity were in another group and those who cared more about style or how they looked were in another. These are fairly simplistic descriptive categories for the cliques but represent how I interpreted their membership. Girls in one clique seemed not to want to mingle with the others. My experience with most of my grade ten girls' classes is that this is not the case. Most grade ten girls who come to GLHS have reached a level of maturity that they are open to make new friends and work with new groups of students. This particular class of girls held on tightly to their familiar friends from their junior high school years.

With the class who participated in this study I attempted to determine if moving away from the traditional team sport-based curriculum towards more individual and partner activities might help spark more interest in physical activity. Also, I inquired whether having choice in the activities creates a focus on the activity rather than creating comparisons with other people in the class. Research by Prusak et al (2004) found "that the choice group: (a) was more intrinsically motivated; (b) had higher identified regulation; (c) experienced less external control; and (d) was less amotivated." (p. 19). Amotivation is a student's inability to determine

the difference between their behaviour and the consequences of that behaviour. A significant difference in motivation at the contextual level was noted (Prusak, 2004), and I used this evidence as an impetus to address these concerns in my own class. Prusak showed how offering adolescent girls' choice in physical education and offering a variety of activities helped to improve the motivation of the students.

Intervention

The intervention was implemented over six weeks and included two phases. The following table presents a brief overview of the planned activities (these are described in more detail in Chapter 4).

Table 1

Intervention

Phase	Week	Intervention
Phase One	Week one	Student Survey, Survey Analysis, Application for funding, Preparation of Lessons, Preparation of Journals
	Week Two	Introductory Lessons
	Week Three	Nutrition Week
Phase Two	Week Four	Student Participation in Lessons of their Choice Journal Writing
	Week Five	Student Participation in Lessons of their Choice Journal Writing
	Week Six	Data Analysis

As shown in Table 1, Phase One included the initial activities and measures used to understand the students' interests. The first part of Phase One involved an initial survey that was given to students to determine the activities they were interested in. As well as administering the survey during week one, students also learned about setting SMART goals, which are Specific, Measureable, Achievable, Realistic and Time-based. I also provided students with guidance on how to prepare and write their own journals during the intervention. By using journals, students will have time to reflect on and focus on their own personal goals during Phase Two of the project. Once this preparatory and introductory component of the study was complete, introductory lessons were taught on the topics that the majority of students chose along with lessons on nutrition to help students see the value of living a healthy active lifestyle.

In Phase Two students were allowed to choose which activities they would like to do for a two week period. Throughout the study, students were provided opportunities to reflect on the activities they had chosen in their journals, and were periodically allowed to make changes if they felt they could better meet their personal goals. Throughout the process of curricular consultation, implementation, and evaluation, I collected data from students (as I regularly do in my day to day work as a teacher to inform my practice) as well as my own lesson plans and field notes. While student data certainly informed how I analyzed the program, these data were not used in writing up this project. The results chapters are structured to reflect the different phases of the intervention. Significant detail is offered there.

Data Collection

There were three forms of data collected during the project. Specifically:

1. Student questionnaires before and after the intervention.
2. Student journals were able to provide me with input from all students on their level of participation and feedback about the lessons.
3. My field notes and reflective thoughts documented as memos and in journals.

1. Student questionnaires. Students were asked to anonymously complete a short questionnaire (Appendix A) that addressed the students' current perceived level of participation in physical education, their enjoyment level, level and type of physical activity outside of physical education class, goals of enrolling in physical education, the values they see in participating in physical education, likes and dislikes in previous physical education programs and characteristics of their ideal physical education program. The aim was to conduct the study with a participatory aspect to engage the students in the curriculum design process (Enright & O'Sullivan, 2010).

For this reason, the questionnaire was open-ended and encouraged the students to describe and critique their own experiences. They were also asked what they do and do not currently like about physical education and what they would like to try in the future. This was presented as a "Yes/No" checklist, where students were asked to indicate whether (a) they liked activities that are presently offered and (b) whether they would like to try many new options that are presently not included in the program. As is common practice for most teachers who seek student feedback to inform their program design, student comments certainly informed the subsequent design of the intervention, however, it is important to note

that none of the direct comments made by students on the questionnaires were included in the final report.

Once the questionnaire had been completed, it was collected and analyzed by the teacher/researcher before any other action was taken. The surveys were flagged for common themes of enjoyment in physical education, value in physical education and skill level in physical education, and were then compiled. The results of the questionnaires regarding preferred activities determined the introductory lessons in the intervention, as described in Chapter 4.

At the start of week six, a second questionnaire (Appendix B) was administered to the students to determine whether the sample units had a positive impact on each student's perception of their participation and enjoyment in physical education. This second questionnaire was similar to the first questionnaire (Appendix A) but shorter because I was trying to determine the effect of the project on the students. The questions were reflective in nature to encourage students to look back at where they had come from and to comment on how the project affected them.

2. Student journals. Student journals were collected and read for feedback. Collecting feedback from students is part of any teacher's ongoing evaluations and for the purpose of this project, student feedback was used to inform my decisions just as it would had I not been carrying out the study. Direct quotes from students or names are not used in the project report. Journals were prepared for students to record and reflect on their experience. These journals were taken from the Canadian Olympic School Program website which offers the

templates as a freely downloadable resource. Unique features of this journal are that it allows lots of space for writing in a spiral bound workbook with pictures of Canadian Olympians. The journals also contain information on training healthy eating and motivational thoughts from Canadian Olympians like Simon Whitfield and Jennifer Abel. Students were encouraged to be honest about their experiences and to reflect on the activity and how they felt about it. They were also asked to set personal goals and reflect if their workout met these goals.

Students made journal entries on each day during Phase Two of the project. At the start of the class, students were asked to set personal goals that they could attain in that class. At the end of the class they were asked to write at least ten sentences about their experiences that day.

3. Reflective entries and field notes. I attempted to make my own journal entries during or at the end of each class. I observed the students in the way they participated, interacted with each other and I made inferences from student comments and expressions about the influence the curriculum design was having on their physical education experience. I wrote about what was happening, what I heard, and about the setting the students were in. I also wrote about who worked with who during various lessons. In the reflective part of my field notes, I was looking for common themes from day to day. If students were engaged, I made notes as to why I felt things were working. If a group of students were struggling I looked for changes that could be made the following lesson. I needed to be aware that as the teacher and as the researcher, I had an impact on the environment and the students. I also looked to any changes that I saw occurring within the activities and the students.

These field notes were my interpretation of what happened in the class; both the events and the activities, and the words of the students as they participated. I also recorded my own actions in the class. I wrote my field notes on one side of the paper and tried to draw out key ideas on the other side of the paper. I used memos to point out what may be puzzling, and made comparisons. Writing memos also helped to point out issues that I may have been struggling with. These memos combined observational notes, theoretical notes, and personal notes. I made thirteen entries over the course of Phase One and Phase Two of the study. Each entry varied from either one third of a page to three quarters of a page for a total of approximately ten pages of field notes. The entries were written in paragraph form to allow room to analyse the data using a method called coding. As suggested by Bogdan and Biklen (p. 120) the entries were both descriptive and reflective in nature. Descriptive entries were those that provided a picture of the setting, people, and actions observed and reflective entries were those that showed what I, as the observer, was thinking.

Data Analysis

Data analysis is the process of finding the right data to answer the research questions, understanding the patterns that appear in the data and being able to communicate the conclusions that are drawn to make a difference in future decision making regarding physical education for high school girls (Bogdan and Biklen, 2007).

Student questionnaires. The quality of the data collected is of utmost importance. I began the data analysis of the student questionnaires by tallying responses to student surveys. These were then reported as percentage scores so that I could understand the distribution of

responses to the survey items. Once I had tallies and percentages to survey items, I compared the findings of the two student surveys. I was looking for common themes, distinct changes and anything that suggested an increase in participation and enjoyment in physical education. I was always looking for data to determine if having choices in the days lesson affected how students participated and data to determine if students worked harder at individual or partner activities than they would have if it was a team sport activity. The data were coded in several ways to help organize the information. The process code was used to put together information about any sequences or changes that occurred within the class during the project. In particular, I was interested in understanding if there was any increased participation within the class. An activity code was used to analyze the activity of the individual students. An event code helped to determine if activities like hot yoga helped the entire group relate better to physical activity. This helped me to determine if the students found an increased value in the activity and in physical education. A relationship and social structure code was determined if the students exhibited increased enjoyment in physical education. I used this to determine if students were able to build relationships and class spirit within the group. For example, doing Zumba can be fun to do with friends. This coding system helped to organize the material (Bogdan and Biklen, 2007).

Using Bogdan and Biklen's (2007) coding system, I flagged the surveys for themes in enjoyment in physical education, value in physical education, and skills in physical education.

Student journals. I used the coding system described above to analyse the student journals. I looked at the goals students had set for themselves and then compared that to what

they wrote at the end of the class. Students were encouraged to make reflective notes. Their journals included notes about the activities they participated in, about other people in their group and about how well they were able to reach their goals that they had set at the start of class.

Field notes. I organized my field notes chronologically by date from the beginning of the study to the end. I left spaces between the paragraphs and wide margins in which to write. Each day of the study, I typed my notes on the computer. I was then able to make a hard copy of my notes to work with in order to flag common words and patterns of students showing enjoyment in physical education, value in physical education and skills in physical education. I categorized these themes into my coding system of process code, event code, activity code and relationship and social structure code. I was able to speculate about future trends and form new ideas to improve on the PE program so that it would have an impact on planning for years to come.

Delimitations:

Delimitations are choices made by the researcher that set the boundaries for the study. The delimitations of this study are that it utilized only female students from one grade ten class at one school. A second delimitation would be using a trained instructor for the introductory class and then switching to a DVD for the workouts in phase two of the study. This was done because of the cost of bringing in trained instructors and/or of going out to the Moksha Yoga studio.

Limitations

Limitations are influences that the researcher cannot control. One of the limitations of this study was giving the questionnaire only to the grade ten girls. There are also some boys who do not love physical education. A second limitation was the funding that was required in offering an alternative physical education program. I was looking to bring in instructors trained in areas like yoga, Pilates, or Zumba fitness. A further limitation was that the data gathered was limited to my own data collection. Collecting data from other sources would have provided greater depth into the project but the focus here was the challenges and issues I faced in designing and implementing the intervention.

Ethical Issues

Results of the study will help to determine the future direction of delivering effective physical education classes which meet the needs of today's teens.

There were no foreseeable risks to student involvement in the study. Students in the study had the same caring safe school environment that any other student at the school enjoys. The same expectations in regards to the school code of conduct for the students and teachers applied as they function with respect to each other, to other students, and to equipment and school property. There were no social risks or financial risks for being involved in the study. Students were told that they would be involved in a new approach in physical education that steps away from the traditional sport based curriculum to one that is more individualized. They were informed that they would be involved in several introductory classes

of different types of activities and then they would have the opportunity to choose one or two of the activities to participate in for a longer period of time. Periodically, they would be asked for feedback which would remain anonymous. Their class would follow the same rubric as the other physical education classes at the school. Consent would not be required as the study was an investigation of the teacher's ongoing work trying new approaches to teaching.

Through class discussions and sharing of information about the process of the study, students would understand the direction of the class. Appropriate information was provided before the questionnaires were given. Participants were not identified in the study and there was extremely low risk to being involved. Questionnaires remained anonymous and did not affect the student's mark.

Anonymity of Participants and confidentiality of data –

- Student questionnaires remained anonymous.
- Participants were not identified in the study.
- Direct quotes from students were not used.
- Questionnaires were administered by a colleague to help put students at ease and remain anonymous.
- In the data analysis, I referred to the anonymous student surveys and my own reflections and field notes.

This project was discussed with and supported by both the Athletic Director and the Principal of GLHS. The Principal submitted a letter offering her support for the project.

(Appendix C)

Chapter 4

Phase One Findings

Introduction

In this chapter, I describe Phase One of the project, keeping in mind the main research question: How, and to what extent, does involving students in curricular decisions affect their involvement, engagement and participation in high school physical education? I wanted to understand if, from my point of view as their teacher, students would work harder at individual or partnered fitness activities when compared to the traditional team-sport based curriculum.

In Phase One, I administered and examined the initial survey to determine what girls want in physical education. I have clustered questions from the survey which provide student data in the areas of Enjoyment in Physical Education; Value in Physical Education and Skills in Physical Education. This information helped to determine the activities to be included in the intervention component of the study. From this point, I was able to set up the introductory lessons of Phase one.

A Description of the Events and Activities of Phase One

Week One. During week one of the study, all Grade 10 female students enrolled in 4th period physical education were briefed on the ideas and motivations underpinning the curricular innovation, and subsequently of the action research project and its goals. A student questionnaire (Appendix A) was then given to the students by the school Athletic Director.

Week one was also used to apply for a grant to help fund costs in any activities that students would like to participate in that are not normally included in the regular PE program. For example, to have a Zumba instructor come into the school required a fee, which the funding would cover. The funding agency to which I applied is a community-based organization that offers funding to help get teenagers more active. It tries to break down the barriers to inactivity by providing inspirational stories, ideas about activities that are available in the area, and micro-grants to help kick start a program.

Also during week one, journals were prepared for students to record and reflect on their experience. The students were interested in looking through their journal and reading the articles about various Olympians.

Findings from the initial questionnaire. Twenty eight of the thirty four students were present and took part in the first survey. It was administered by our school Athletic Director and students were informed not to write their names on it so that it would be completely anonymous. They were also told that in no way would participation in the survey affect their mark. The questionnaires were collected and analyzed by me, the researcher. Some interesting findings from the survey informed the design of the study. Based on the data, introductory lessons were set up. Analysis of the survey data revealed the following findings according to enjoyment in physical education, value in physical education, and skills in physical education.

Enjoyment in physical education. The first parts of the survey I analyzed were questions that asked students about their enjoyment in Physical Education, both in the past and at

present. The results of these questions served as baseline data from which I could begin to address students' needs and interests in a physical education program in the development of the study. Table 2 shows these findings.

Table 2
Initial Questionnaire - Enjoyment in Physical Education (n=28)

Question No. and Description	Frequently	Often	Seldom	Never
1. How often each week do you enjoy participating in Physical Education?	15 (54%)	8 (29%)	5 (18%)	0
2. How often each week do you sit out of an activity during Physical Education?	0	1 (3%)	8(29%)	19 (69%)
5. When the activity is a team sport, how often do you enjoy participating in PE?	15 (52%)	13 (48%)	0	0
6. When the activity is an individual one, how often do you enjoy participating?	4 (14%)	16 (57%)	5 (18%)	3 (11%)
11. Do you feel happy during physical education class?	9 (32%)	12 (43%)	6 (21%)	1 (4%)

Analysis of survey question one showed that while most students either frequently (54%) or often (29%) enjoyed the time they spend in physical education each week, 18% seldom do. Although not a majority of the class, these 18% were a primary concern of this study. Because of the health implications that are related to participation in physical activity, ideally all students should enjoy or see the value of participation in physical education some of the time. Despite some students reporting that they seldom enjoyed physical education, analysis of survey question #2 suggested that there was a very high participation rate, with 97% of the class reporting that they seldom or never sit out of class.

In response to survey questions five and six respectively, students in this class reported a very high level of enjoyment in team sports (100% responded with frequently or often) while not as many enjoyed individual sports (only 71% responded with frequently or often). It is worthy to note here that 29% of the class reported seldom or never enjoying individual activities and, to my surprise, analysis of survey question 11 showed that 25% of the class seldom or never felt happy in physical education class.

Although not listed in Table 2, questions 12 - 15 were open-ended to allow the students to provide an expanded response related to their enjoyment of physical education. Analysis of questions 13 and 14 showed that students reported that physical education was more fun in elementary school where, from their point of view, the focus was on fun not on the exercise.

Value in physical education. The next part of the survey that I examined looked for student responses about the value of physical education. Table 3 shows the questions and the results from the initial survey.

Table 3

Initial Questionnaire - Value in Physical Education (n=28)

Question No. and Description	Frequently	Often	Seldom	Never
3. How often each week does the class get to choose the activities they participate in during PE?	0	0	4(14%)	24(86%)
4. Do you feel that PE is a valuable part of your day?	12(45%)	10(35%)	3(10%)	3(10%)
8. How often each week do you participate in physical activity outside of PE class?	8(29%)	6(21%)	9(32%)	5(18%)
9. How often each week do you meet friends to participate in physical activity outside of PE?	5(18%)	7(25%)	10(36%)	6(21%)

One of the reasons that several students reported seldom enjoying physical education (as reported in Table 2) may be due to the extent to which they feel they don't have a choice in what they participate in. For survey question three, the entire class (i.e., 100%) responded that they seldom or never get to choose the activities they get to participate in for physical education. This is absolutely true at this point in the current program and my realization of this aspect of my practise as the impetus for this research project. I feel that students must be allowed to make appropriate choices in this course to participate in activities that lead to improved fitness. Question four on the survey also found that 80% of the class feel that physical education is a valuable part of their day. That leaves 20% who do not feel that physical

education is a valuable part of the day. Question eight showed that as far as participating in physical activity outside of physical education, 50% of students responded frequently or often while 50% responded with seldom or never. Of these, 43% meet friends outside of school to participate in physical activity while 57% seldom or never do.

Because this study is based on the importance of providing students with some degree of choice in making curricular decisions, question 15 of the open ended questions asked students for suggestions to improve on the existing physical education program. The most prominent student responses included being able to pick their own activities and teams, a wider variety of activities, less running and more walking, and louder music. Similar responses were given to a question that asked students to make one suggestion to improve their enjoyment of the existing program. The following responses were provided: more field trips, being able to pick their own teams, a variety of activities, and no judgemental people. A few students responded that there was nothing they would change about the existing program.

In question 12, 75% of the students who responded to the survey feel they already know enough about how to live a healthy active lifestyle. Surprisingly, the other 25% feel they need to learn more. This places more value on their experience in physical education.

Skills in physical education. The last part of the initial survey asked the students questions about their own perceived skill level. Table 4 shows the questions asked and the responses from the students.

Table 4

Initial Questionnaire - Skills in Physical Education (n=28)

Question No. and Description	Frequently	Often	Seldom	Never
7. How often each week do you feel you have the skill to participate at a competitive level with your class?	12(45%)	8(28%)	8(28%)	0
10. Do you enjoy trying new activities?	12(45%)	10(38%)	5(17%)	0

In regards to student perception of their own skill level, analysis of question seven showed that 73% of the class felt they are skilled enough to be competitive in class activities while 28% felt they are seldom skilled enough. I was also encouraged by responses to question ten which revealed that 83% of the class either frequently or often enjoy trying new activities. This finding led me to believe that there should be a positive response to the introduction of new units such as Hot Yoga and Zumba.

Enjoyment of physical education content. In order to gain a superficial understanding of what the girls in the class would enjoy participating in, the survey asked students to select the activities that they would enjoy participating in during physical education. Some of these activities are already part of the existing physical education program. I included a list of these activities in the questionnaire to get some idea of how satisfied the students were with the existing program and where the changes should be made. Table 5 shows this breakdown of student interest in the existing activities and student interest in possible new activities. The column on the left hand side of the table shows the number of students who enjoyed specific

activities in the existing program. The column on the right had side shows the number of students who claimed that they would enjoy specific activities in a new and revised program.

Table 5

Comparison of student interest in the existing program and possible new activities (n=28)

Existing Program	# of students	%	New Activities	# of students	%
Badminton	24	86	Zumba	27	96
Soccer	24	86	Wheelchair Basketball	23	82
Archery	24	86	Hot Yoga	22	79
Bowling	23	82	Tennis	17	61
Volleyball	21	75	Rowing	15	54
Basketball	11	39	Rugby	14	50
Goal ball	11	39	Treadmill Running	12	43
Football	11	39	High Jump	12	43
			Ball Hockey	12	43
			Spin Cycle	11	39
			Table Tennis	10	36
			Weights	7	25

Analysis of the data presented in Table 5 showed that large numbers of students enjoy badminton, soccer, archery, bowling, volleyball, basketball, goal ball, and football in the existing program. From these data, I can conclude that most of the class enjoys at least some team sports to some degree. This contrasts to what is reported in much of the literature (e.g., Ennis, 1996; 1999). Because these activities are already a part of the sport-based program that exists,

they will not be included in the project. Wheelchair basketball is recently not available because the chairs are in need of repair. Finally, because it was winter, I was not able to do units on Rugby, Ball Hockey, Tennis or High Jump. We do not do ball hockey indoors because it is too hard on our hardwood gym floor.

Based on responses to the student questionnaires and the purposes of this study, the introductory units to be taught during the intervention were those that had the highest number of student responses that were not being taught in the existing program.

Week Two. Week two was used to plan the lessons that were going to be offered based on responses to the initial survey. During week two, I taught introductory lessons (as the physical education teacher) and, where possible, experts in the activities came to teach the class. For example, for the Zumba lessons a local Zumba instructor was called in. I added Pilates to the lessons because a Pilates instructor was also available.

I was happy to discuss the project with my students and they were keen to participate. When the first survey was given to the students by the school Athletic Director, I was eager to analyze the results and start setting up the lessons to be used. This proved to take longer than I had expected even though I had made some initial contacts. It meant multiple emails to the various instructors I was planning to use and putting funding in place with a budget to pay for the costs. The Moksha Yoga Studio had their own waiver that they required to be signed by parents as well. Transportation needed to be arranged to the Moksha studio and students needed reminders for days ahead of time to get their form in and to bring a towel and a water

bottle on the day of the trip. Anyone with their own yoga mat was encouraged to bring it as well to save on the rental fee at the studio.

There were many emails to confirm dates and times with the Pilates instructor, the Zumba instructor and the tour of Sobeys. For each event an alternate day needed to be set up in case we were hit with an early winter storm. Transportation also needed to be set up to the Sobeys grocery store. I did all this while carrying a full teaching load, coaching our school AAA girls' basketball team, and conducting this study. I would recommend to other teachers who wish to implement a project of this size to at the very least, drop the coaching side of things or allow someone else to take over as head coach. This would allow the extra time needed for the project.

Weeks Three and Four. What I had originally intended to occur in week three of Phase One actually took place over a two-week period because of the availability of instructors and school interruptions such as professional development, a student assembly and a snow storm. Table 6 shows the date and order of lessons that were taught as part of Phase One of the study.

Table 6

<i>Phase One – Lessons and Dates</i>	
Lesson	Date
1 Hot Yoga	Nov 20, 2012
2 Pilates	Dec 3, 2012
3 Endurance Weight Training	Dec 4, 2012
4 Zumba	Dec 5, 2012
5 Treadmills, Spin Cycles, Rowers	Dec 6, 2012
6 Nutrition (power point presentation)	Dec 10, 2012
Nutrition (tour of Sobeys)	Dec 12, 2012
Nutrition (benefits of exercise lecture)	Dec 14, 2012

Lesson 1: Hot Yoga– (November 20) - On Nov 20, the class boarded a bus to go to Moksha Yoga in Charlottetown, PEI. Twenty six of the thirty four students in the class attended the field trip. We put on our workout clothes at school to allow more time at the studio and then made some notes in the student journals about what to expect from this workout. Upon arrival we were greeted by our instructor. After removing footwear, the class put their things in the locker room and quietly went into the studio to lay out their yoga mats. It was difficult for the girls to be quiet as there was so much to comment about and these are 15 year old girls who love to talk.

The temperature was 42 degrees. The class spent a few minutes just lying quietly on their mats to get the feel of the place. Our instructor began the session with a very calm voice and played soft music in the background. She explained that she would be leading the class through an introduction of basic yoga moves. It would be important to breathe and go through the full range of motion. Basic yoga moves would be taught and students would be part of the calm soothing atmosphere of the studio. Besides a calm mind and fit body, students learned that the benefits of hot yoga include the release of endorphins which make you feel happy and reduce anxiety. The students were sweating in no time without even working very hard. I was sweating too. In fact, I did not know it was possible to sweat from my ankles. I felt like my whole body was being cleansed. The instructor easily kept the class motivated with her calm voice and extensive knowledge of yoga.

Afterwards, on the bus ride back to school, the class was very calm and many expressed how good they felt. The workout felt cleansing to all of us. Students chatted quietly with each other. They kept coming back to the peacefulness they felt. They used words like calm and re-energized in a good and positive way. Hopefully, they were able to carry this feeling with them throughout the rest of the day. Some students inquired about memberships and gift cards. The students all asked if we would be going again.

Lesson 2 – Pilates (December 3) - The second introductory lesson in this project was a class on Pilates. This was not on the initial survey as an option but I added it in the lesson plans because an instructor was available and because Zumba and hot yoga had high interest levels. As such, I

assumed that the similar movements required in Zumba, yoga and Pilates would mesh well with one another and be appealing to the students.

The instructor came to the school to lead the class. She brought her own music and sound system. She introduced herself and explained that she was a former student from the school. The class set up their mats in front of her. She began by giving a brief explanation that Pilates is a body conditioning routine that helps build flexibility, muscle strength, and endurance. It places emphasis on breathing, a strong core, and improving coordination and balance. She began with some stretching and preparatory exercises such as supine rocking and chest lifts. She talked about having a flat back and then moved the class through some fundamental Pilates exercises. These included rolling like a ball, single leg stretch, and double leg stretch. The class was polite but did not seem to be interested. In fact, they looked bored. The exercises did not flow into each other. It felt like a long amount of time to be doing exercises on a mat. Following the class, students did comment that they learned new stretching exercises and techniques for breathing and that the instructor gave clear instructions. At the same time, they also said they did not want to do any more Pilates. Even I was watching the clock to see how much time was left. I felt that perhaps after the excitement of the hot yoga class, the students may have been expecting more from this class. This tells me there are many factors which affect student engagement in physical education. It also brought me back to Earth about offering students choice and the pitfalls of making assumptions about making decisions on their behalf.

Lesson 3 – Endurance weight training circuit (December 4) – For the third lesson, I introduced the students to a weight training circuit of eight stations which focused on core strength. They were taught how to safely find the maximum weight they could lift one time. This is called their maximum weight. They were then instructed to do three sets of 10–14 repetitions of 50% of that weight. The stations being used were bicep curls, triceps extensions, bench step-ups, med ball sit-ups, pyramid push ups, bench press, back extension and skull crushers. They were given a sheet on which to record their work out (Appendix D). Most of the girls had not done very much weight training so these exercises were new to the class. They were quite hesitant to begin. Most students were able to establish 50% of their maximum weight and do the required 10–14 repetitions.

Students were generally uninterested in this lesson. Since only 25% of the students expressed an interest in weight training in the initial survey, it was no wonder that the girls were not comfortable with this lesson. They were polite and the good students did what was required. Later, I felt that one lesson was not enough and thought I should have offered at least three lessons for the students to begin to get the feel of what weight training could do for their bodies.

Lesson 4 – Zumba (December 5) - The fourth introductory lesson was a Zumba class. I was excited about how this class would go as 96% of the class asked to try this. The instructor was young and energetic. She led the class in an upbeat, high impact workout. The music she used had a 4-4 count and was easy for the class to keep the rhythm. We turned off half of the lights to make the girls feel more comfortable, as several expressed not feeling comfortable with

having their peers see them moving. Our instructor started each song slowly, introducing the steps, then as the tempo of the song picked up she also picked up the pace of the workout. She was able to motivate the class with the music she used and how she talked to the class. Students were laughing and smiling. They were focused on having fun, not on getting a workout. Even if they could not keep up with all the Zumba moves, they still worked hard and had fun. It did not matter if they messed up here and there. At the end, the instructor led the class in a cool down to a slower song. Even students who often seem awkward in physical education were easily drawn into the steps of each routine. Following the class, students commented how they had gotten a workout without even realizing it. Zumba had combined dance and exercise and the music made it more enjoyable for everyone. They got sweaty without even realizing it. Some students felt it was gross to be sweaty but that it was OK. At the end of the class, there was a lineup of students at the water fountain. Most students I talked to expressed interest in doing more Zumba.

Lesson 5: Introduction to cardiovascular fitness – treadmills, spin cycles, and rowers**(December 6)**

The fifth lesson was an introduction on how to use machines developed to enhance cardiovascular fitness; specifically treadmills, spin cycles, and rowers. The class learned how to use this equipment safely and how to perform a workout on each one. They were then given the opportunity to try out the equipment. In the school wellness room, there are three treadmills, three Concept 2 Indoor rowers, and five spin cycles.

The indoor rowers provided an opportunity for students to reach fitness goals. It was explained that a sample workout should be about 20 minutes in duration with a moderate intensity. They should be able to carry on a conversation. They could go for a specific distance, possibly 2000m (this could be done in 500m intervals). They could do 40 seconds harder, then 20 seconds easier for 15- 25 minutes. There is also a four minute game they could play and challenge a friend.

Students were taught how to adjust the Spinner Pro spin cycles for their own body size and comfort. A brisk and rhythmic workout on a spin cycle will train the muscles and cardiovascular system to perform at a higher efficiency. The key is to exercise aerobically; typically at 60% of their maximum heart rate. Students were given an overview of the core movements that form the foundation of the Spinning program. These are Seated Flat, Seated Climb, Standing Flat/Running, Standing Climb and Jumps (not literally). Hand positions are also important to open the lungs to facilitate breathing. A video was available for students to use for their workout.

Lastly, the treadmills were introduced. Students should know what their fitness goals are to be able to develop a more successful exercise program. The programs on the treadmill that a student could use are Sprint 8 (an anaerobic interval program designed to build muscle and improve speed), Pacer (race against the console), HRT weight loss (maintains you at 65% of max heart rate) HRT Cardio (maintains you at 80% of max heart rate), HRT Endurance (you control both the speed and elevation), HRT Interval (alternates a work interval with a recovery interval), Manual (customize your own workout), Muscle toner(improves strength, speed and

endurance), Speed intervals (promotes weight loss), 5K with elevation changes (improves your cardiovascular training). Students were taught to always use the safety strap when working out on the treadmills.

When the instruction was over, students were given an opportunity to try the equipment. Many rushed towards the treadmills. I wished we had more treadmills since this was the most popular option. I gave the students five minutes and then asked them to switch to a new station. Again there was a rush for the treadmills. Students on the rowers seemed to have trouble to keep going for the full five minutes. They did enjoy the four minute fish game and challenging a friend to beat their score. The spin cycles were popular as well but required time and patience to adjust the bike to one's own body build. We switched activities every five minutes.

Lesson 6 – Nutrition (December 10, 12 and 14)

This lesson had three parts that were taught on three separate days. The lessons focused on the importance of nutrition and choosing foods which fuel the body.

In the first nutrition class, two slide show presentations, developed by a dietitian through a school health grant were given to the class. The first slide show was titled, "*The Power of Choice.*" It focused on Canada's Food Guide and making healthy choices about the foods we eat. Students did an activity where they wrote down all the food they ate in the last 24 hour period and then totalled the number of servings they had eaten from each of the food groups. They then compared this to the recommended servings in Canada's Food Guide. They were asked to think if this was a normal 24 hour period for them and if they had missed the

mark in any particular food group. Some students became aware that they had to make some changes if they wanted to get the proper nutrients to fuel their bodies. Many were surprised that they were so far from meeting daily requirements. The second slide show was titled, “*Myths and Misconceptions*”. It focused on myths like ‘*Red meat is Bad*’ and ‘*Protein builds Strength*’. The students seemed very engaged in this lesson and had a lot of really good questions in this area. I would have thought that at the grade ten levels, students knew this but it seems many need to be reminded. Also, as their interests and activity levels change, so does their dietary needs.

Part Two of the Nutrition lesson took place on Dec 12. This was a field trip to Sobeys grocery store to meet with a dietitian, who talked about nutrition and reading labels. It was a wonderful free service provided by the grocery store to educate people in the value of the foods they buy. We were greeted as the class entered the cheerfully decorated community room at the store. The class sat around a large table. The instructor had a number of handouts prepared. She discussed food value and how to read labels on food products. She stressed watching for anything with high salt or sugar content. Also, she commented that breakfast cereals should have at least 4 g of fibre.

Next the instructor led the class on a tour of the store. She stopped in various areas comparing products by the food label. Finally we stopped in the cereal aisle. She asked the class to find a cereal that would have enough fibre to give you a good start for the day but not too much sugar or salt. The class went right for their favorite cereal and some were surprised

at the contents. The instructor was able to make the point that if there was only a small amount of fibre they would feel hungry again soon after breakfast.

The third lesson was on the benefits of exercise and the role nutrition plays in physical activity. Students participated in a classroom session to learn the value of getting their heart rate to a level to have conditioning effect. They learned how daily physical exercise has lifelong benefits and what these benefits are. Physical activity and nutrition work together for better health. Being active increases the amount of calories that a person burns. Being able to fuel your body with a healthy balance of nutrients as recommended by Canada's Food Guide will aid in overall health.

Chapter Summary

This chapter described the findings of the first three weeks of the study titled Phase One. Phase One was a time to lay the ground work for Phase Two of the study. It was a time to gather data, plan lessons, and introduce the class to new individual or partner activities that they normally would not have the opportunity to participate in during physical education.

The main findings of this chapter were the positive responses that the students had for both Zumba and Hot Yoga. These activities are not part of the existing curriculum and required extra time and effort to present to the class. It was certainly worth it though to see the class so excited to participate, especially since 83% of the class indicated they enjoyed trying new activities. The students also showed a high level of interest in the nutrition lessons. I found this surprising as nutrition is so vital to our very existence and students have learned these things

since grade one. On the other side of things, I was disappointed that Pilates was not well received by the students.

Chapter Five

Phase Two Findings

Introduction

Phase Two of the study took place over a three week period following Phase One. The design of the intervention in Phase Two was based on student responses and experiences during Phase One (as described in the previous chapter). Following their experiences of sampling several new activities, the lessons in weeks four, five, and six offered the students a choice in the activities they participated in and an opportunity to set personal fitness goals.

A second survey was given during the final week of the study. This was an important time to gather and analyze data and to better address the research questions.

Weeks Five and Six. The lessons planned in weeks five and six of the study allowed the students to participate exclusively in one or two of their favourite activities that were offered during Phase One. Specifically, their choices were taken from the introductory lessons that were taught in week two of the study, including Zumba, yoga, Pilates, endurance weight training, treadmill running, rowing, and spin cycles. The goal was to have students participate in an activity of their choice with the hope that they would participate at a level that improved their fitness and would possibly consider participating in this activity beyond the walls of the school. I was looking to determine if having a choice in activities encourages students to participate in a way that allows them to experience greater enjoyment, work harder, and find more meaning than in their current physical education offerings.

At the beginning of each class in Phase Two, students set personal goals in their journals and reflected on these goals at the end of each class. The journals were used as a time for personal planning and reflection. Students were allowed to make changes the next day if they found the workout did not fill their goals or if they felt they had different needs.

In Phase One, each of the activities was taught by someone with extensive experience and knowledge of that activity (such as a local yoga instructor or Zumba instructor). However in Phase Two, I was unable to offer students lessons taught by the same trained instructors for hot yoga or Zumba because there was no funding for this. In addition, I could not supervise students if I sent them off to two different venues (Moksha Yoga studio and GLHS gym). As such, I had to rely on several methods to attempt to provide students with strong instruction in each activity. For example, students who choose Zumba would choose a DVD from the *Zumba Exhilarate* series, from which there are seven different workout DVDs to choose. The seven options had slightly different emphases as indicated by their titles: *Rush, Mix, Fitness Concept, Exhilarate, Ripped, Activate, and Step by Step*. Students who chose Pilates or Yoga followed a DVD by Jillian Michaels (a popular personal fitness trainer and television host). These videos were set up in either the gym or the wellness room which is attached to the gym.

Table 7 shows a hypothetical example of how each 80 minute class in Phase Two might be planned and implemented:

Table 7

Phase Two – An example of an 80 minute class

Time	Activity
10 minutes	Students arrive and change into suitable gym clothes
10 minutes	Students journal their workout for the day. This may require some assistance.
10 minutes	Warm up
30 minutes	Individual workouts. Students may do 15 minutes of 2 activities or 30 minutes of one activity.
10 minutes	Journal Entries about the workout and a brief reflection.
10 minutes	Students are dismissed to shower and change.

Descriptions of Phase Two lessons: Student Experiences

Day 1. The class began with the students making their selection of two activities that they would like to use as their workout. The choices were listed on the smart board. Table 8 represents the total number of students who chose each activity as their first or second preference.

Table 8

<i>Activity choices of students</i>	
Activity	Number of Students
Zumba	22 (42%)
Pilates	0
Yoga	8 (15%)
Spin Cycles	8 (15%)
Treadmills	8 (15%)
Rowers	6 (12%)
Endurance Weight Training	0

It is important to note here that although students could choose two activities, some students only wanted to do one activity for the entire workout. They used their journals to set up their SMART goals. They were instructed that ideally they would do fifteen minutes at the first station and fifteen minutes at the second station of their choice; however, if students wanted to they could do the entire 30 minute workout at one station.

Students were divided into workable groups and asked to go to their first workout. The group sizes varied, and was partially determined by the number of treadmills and rowers available. Students appeared to be motivated and went eagerly to their spots. They were smiling and chatting with their friends about their choices and moved enthusiastically to their

stations. It was quite a busy time with all the questions and trying to get the workouts going. I felt invigorated by the energy of the class.

Although the class began with such a positive feeling, several problems began to emerge very early on in the intervention. For example, the Zumba video was played on the computer /smart board but the sound was not very good so some people could not hear. Also, the video to be used by the spin cycle group was more for racing than for a girl's physical education class—any students found it simply too challenging. As a result of these problems, several students began to lose interest. What a disappointment after all the work to get this project going. I felt challenged to keep things going and to stay positive.

After fifteen minutes, the class was asked to switch to their second activity. Some students had even taken matters into their own hands and by that stage had already made the switch. No one stayed at the Zumba video! I was shocked and disappointed by this since 96% of the students had requested this activity on the initial survey results reported in Chapter Four. Also Zumba was by far the most popular of the introductory lessons selected by the students. However, student interest in Zumba had changed in an instant.

To cope with the loss of student interest in the Zumba station, the TV was moved from the spin cycles (who could listen to music on personal devices while doing their workout) to the yoga group. A large group had gathered here even though they had not signed up for it. Despite this going against my original lesson plan, I thought it best to let the class settle in where they were comfortable with the hopes that they would engage with what they were doing.

Following the workouts, students reflected on their first workout in their journals. They were encouraged to write about why they made the choices they did. From a brief read through the journals, students expressed a frustration with the Zumba video because they could not hear. A simple problem had caused a lot of disappointment, both for me and the students.

Day Two. Students were brought into the wellness room and began the class by setting their SMART goals in their journals. They were told that some changes were made to avoid some of the problems from the previous day. For instance, the Zumba video was played on the wellness room TV and using the sound system. Students chose a Zumba mix and asked to have the lights turned down a bit because they felt students at other activities were watching them. The yoga group set up their TV in the gym where they had more space and fewer distractions from the other groups. The spin cycle group set up their bikes in a circle so they could chat with each other and listen to music. The treadmill groups were shown how to find their heart rate as they worked out using the hand sensors on the treadmill to determine if they were reaching their target heart rate zone. The rowers were busy as well with students mainly choosing the game mode rather than going a distance. As with the first class, the weight training circuit was not very popular.

Students were reminded to stay at their first choice for fifteen minutes before moving to their second choice. The Zumba and yoga groups were working well; however, some students lost interest and took their own initiative to move to another station before the time was over. I felt that students needed to hear how much time was left and reminded them to

focus on their workout. It occurred to me that although students had made personal choices, they needed me to provide some additional motivation to get to the end of the required time at the station.

At the end of the workout students got out their journals and were asked to evaluate their performance for the day. I asked them to think about the following questions: Were they better able to meet their goals than the previous day? Were there any changes they should consider for the next day? Today I was more prepared for technical problems and tried to anticipate or foresee any major challenges. I looked for opportunities to motivate my students and tried to help them do any problem solving that might be necessary.

Day Three. From my observations, the third day of the project was the best so far. Students began by writing in their journals and establishing goals for the day. These could be the same as the previous day or they could make necessary adjustments. If needed, they could switch activities to better accomplish their goals. Some students set new goals because they felt they would get more benefit from a different activity. However, some students made necessary changes to meet their own personal needs. For example, I outlined some benefits of using the weight room, which to that point in the project, was under-utilized. I explained that if they play hockey, they may want to work more on legs in the weight room, or if they swim, they may want to work more on their upper body, or if they play soccer they may want to work on their core strength and legs. There are also those who do not know what to work on and just need core strength. Following this explanation I was surprised to see that three students switched to weight training to help improve their strength for the sport they played.

Students were reminded that each workout was fifteen minutes. They were told that if there was a valid reason to make a change in the choices that had originally made they could do that at the start of today's session. They could stay at Zumba or yoga for the full amount of time but because there were limited numbers of treadmills, rowers and spin cycles these stations could only be used for fifteen minutes to allow everyone the opportunity to participate in something they wanted to. It took very little time to get things going and everyone was working out at a station of their choice within a short amount of time. I realized that it was a big step to go from a teacher-directed program to a program like this that was more self-motivated student motivated and directed by the students. With the many different activities going on and the use of technology, it was important for students to be able to problem solve to make things work.

I noticed today that students were more focused on their activity and less distracted by what other groups were doing. It seemed that the cliques I had witnessed in my class were not as important as the activity at hand. Students at the yoga station commented that the pace of the DVD for that day was slow. Typically they could change the difficulty level through the DVD menu; however, the remote for the TV was missing so it would only play the introductory level. As a result, most students at the yoga station soon lost interest. Even though there was already a group doing Zumba the yoga group put on a Zumba mix video for their second fifteen minute workout. They were all in agreement that they should do this and I noticed them working hard. This meant there were now two groups doing Zumba—one in the gym where they had more space and one in the wellness room where they could turn the lights a little lower. Some students seemed to like working out with the lights turned down so that they could focus on

the exercises and not on the other students in the class.

Today, students put a concentrated effort into the workout of their choice. Everyone seemed to be more settled and the class was falling into a pleasant routine. Again because of the many small groups that were working on different activities, students commented about feeling happy that they were not being watched by most of their peers in the class.

Day Four. At the beginning of the class students were reminded to think of their short-term and long-term goals and make any changes necessary for their workout. Some students were happy with where they were at while others made changes. Again, students were told they could stay at the same activity or change after fifteen minutes. Students at the yoga workout commented that it was a little boring because it repeated the same exercises. They made the same decision as the day before and switched to a Zumba video, which they loved. It was a mix with different dances from around the world which they seemed to enjoy. The class worked hard and from talking to students their improved effort was a result of them feeling it was fun and that they were doing it with their friends.

Today the treadmills were in demand but because there were only three not everyone who chose to do a workout on a treadmill was given an opportunity to do so. One of the features of the treadmills is that they allow students to see what their heart rate is which offers them some feedback if they are working hard enough to improve their fitness. I felt that this motivated a lot of the treadmill participants to put forth a strong effort in the class.

Day Five. Day five was similar to the previous day. Students were asked to think about what they wanted to accomplish in a workout and make any changes necessary. Most chose

the same stations as the previous day. Some students found the station they were at a little boring to do for the full fifteen minutes for another day. Also fifteen minutes on the rowers can seem like a long time for someone who does not have a high fitness level. Very few students chose to move to a different station being comfortable to work out with friends. I showed them some games to play on the rowers and ways to challenge a friend. However, most students had settled into a workout that they liked and wanted to do for 30 minutes. Students were given time to journal what they did and how they felt about the workout. Students were able to express themselves in their journals about what was working for them in the work outs and realizing when they needed to make a change. One student commented that she tried the endurance weight training today because she did not enjoy the yoga as much as she thought she would and found out that she liked the way she felt after weight training.

Days Six and Seven. Days six and seven saw students doing the same as they did on days four and five. We began with a talk about the day's workout. Again students were given the opportunity to do a different workout or stay with what they were doing. Most students chose to stay with their workout. The Zumba group still chose Zumba but picked a different CD.

Again, more students would like to use the treadmills so the longest I allowed a student at this station was fifteen minutes. That only allows six students each day to choose this as a workout.

I felt it was important to allow the students to change their activity as we went along as they came to realize what worked for them, helping them meet personal goals, and having a positive experience at the same time. The students were also becoming aware of how they feel

after various types of workouts and which part of their body gets a conditioning effect. Many students expressed concern for their overall fitness as it relates to the sports they play and as such, were choosing activities that would help improve sport-specific performance.

Day Eight. This was the final workout day. It began like the others with a class discussion on thinking what their personal goals were and if there were any changes they should make from the previous days. We also talked about what it takes to have a good work out. Students went to their first activity and then were allowed to switch after fifteen minutes. The class knew the expectations. At the end of the class they were asked to reflect on the workout in their journals.

In these final days of the project I felt happy with the students being able to choose and plan their workout. The earlier struggles had been resolved and the students were responsible for their own workout. They seemed to enjoy this and to be able to work with their friends or people of similar interests. I was actually able to participate with some of the groups and by doing so provide motivation for the students. I felt at this point that the project had been a success and that giving the students a choice in activities had motivated them to work out at a level that would improve their fitness.

Week Seven

Day Nine. On Day nine of the project students were given the final survey by the school Athletic Director. Thirty one students completed the survey. They were reminded not to put their names on it and that in no way would it affect their mark. Students were asked to answer all the questions as accurately as possible.

Responses to the Post-test Survey

I clustered the questions together that asked about student enjoyment in physical education in Table 9 and the questions that asked about the value of the new program in physical education are clustered together in Table 10.

Table 9

Post-test Survey - Enjoyment in Physical Education (n=31)

Question No. and Description	Frequently	Often	Seldom	Never
1. How often during the lessons did you enjoy participating in PE?	8 (25%)	18 (58%)	4 (13%)	1 (3%)
2. How often during the lessons did you sit out of an activity?	0	1 (3%)	16 (52%)	14 (45%)

In response to the first question, 83% of students responded that they frequently or often enjoyed participating in physical education during the lessons of the project, while 97% of the students said that they seldom or never sat out of any of the activities during the project.

A problem within the results of this study is that it does not identify (a) whether it was the same students who continued to enjoy physical education or (b) the students who did not show an increase in their enjoyment of physical education. In the initial survey 83% of the students responded that they either frequently or often enjoy participation in physical education. Interestingly, in the final survey this same number, 83%, responded that they frequently or often enjoy participation in physical education. Because the surveys were

anonymous, there is no way to determine if the target group of the study (the 18% who seldom or never enjoy participation in physical education) showed an increase in enjoyment.

I found that student choice was highly motivating for students. The students appeared to really appreciate having a choice in the activities that they would be participating in during the course of the study. In question six (not provided in the table), students were asked if it mattered to them that they had a choice and to explain why. Twenty-seven students (93%) responded that it did matter to them that they had a choice in their physical education activities, while two students responded that they did not like choices. Some commented that they participated more actively when given a choice and they had more fun while others mentioned that they could all be active in a way that each person enjoyed. Other reasons included feeling comfortable and coming to class with something to look forward to. They knew it had a personal benefit to them and this made them feel motivated. They liked having a choice because it kept things interesting and it was nice not to be told what to do but rather make their own decisions.

The generally positive response to providing students with choice mirrors the findings of Gibbons and Gaul (2004) who found that active collaboration between the students, teacher, and researcher resulted in a curriculum where students participated in a meaningful way and created an interest in life long physical activity. This course design proved to be highly motivational and offered a large variety within the program. I tried to generate some of the same activities suggested by Gibbons and Gaul (2004) in my own study. I wanted the class to take responsibility for their own fitness activities by setting goals and staying with the activity

for the recommended amount of time. This was happening by the third day of Phase Two of the study. Students understood that they could participate in an activity that met their own goals and with the people they wanted to work out with. As such, there was a level of responsibility placed on them to make decisions that they were comfortable with and that provided a level of optimal challenge for them.

In response to question seven (not provided in the table) that asked students about their favorite activity, many students responded with activities that were not part of the study, like volleyball and badminton. In reflecting on this outcome, I partly feel that the question should have been worded differently to indicate only activities in the study. However, I am also interested and surprised that many students selected activities not in the study and that comprise most “traditional” physical education programs. This leads me to question the critiques of traditional physical education programs, as students in this class tended to enjoy what they were being offered previously. There is evidence to suggest that it is not the inclusion of sports in the curriculum per se that is problematic but rather the dominant pedagogies used by teachers in teaching sports (Ennis, 1996). For students who identified preference for activities in the study, Zumba received the highest rating (7 students = 24%). Students commented that it was fun to do with friends and easy to get into even if they were not good at it. Having steps to follow made it easy to do in a large group. Hot Yoga received the second highest score (6 students = 21%) because it was not a typical thing to do in physical education and some students commented that they would like to go back and do it on their own. One student (3%) said she liked the treadmills the best.

In question eight (not provided in the table), students were asked if the project they were involved in encouraged them to participate more actively in class. Eighteen students (64%) answered with a YES while four (14%) said NO. Reasons given for saying YES were similar to the previous question. Some commented that the activities drew their attention and they looked forward to coming to class. They wanted to be more active. Students who are not interested in traditional sports are happier if they have more choices. From the four students who responded with a NO, some commented that they participated to the same level that they did prior to the intervention and that physical education does not encourage them to participate to a greater extent; it is just another course.

Students commented that they enjoyed physical education more when they could choose their own groups to work in and be with their friends. This shows the value of relationships and the social structure of physical education. The class loved Zumba because of the atmosphere, the music, being with their friends and getting a workout while having fun. They loved hot yoga for similar reasons. The atmosphere was relaxing but they could work out with friends in a non-competitive atmosphere.

Table 10 represents the student responses to questions in the final survey that asked about the value students found in Physical Education.

Table 10

Post-test Survey - Value in Physical Education (n=31)

Question No. and Description	Frequently	Often	Seldom	Never
3. How often did you feel the lessons were valuable to your overall health?	3 (10%)	16 (52%)	11 (36%)	0
4. Did you feel that physical education was a valuable part of your day?	11 (35%)	15 (48%)	4 (13%)	1 (3%)
5. How often did you feel the lessons were benefitting your level of fitness?	5 (16%)	18 (58%)	7 (23%)	1 (3%)

In the survey questions that asked about value in physical education (i.e., questions 3-5), 62% of the students responded that they frequently or often found the lessons were valuable to their overall health while 83% said that they frequently or often felt that physical education was a valuable part of their day. This figure represents an increase from the beginning of the study where only 80% of the students felt that physical education was a valuable part of their day. In addition, 74% of students felt that the lessons were beneficial to their level of fitness.

Students were also asked if the lessons on nutrition changed their approach to fitness. In response to this question (not listed in the table), eleven students (35%) said YES and eleven

students answered NO (35%). There were a number of students who did not attend the field trip to Sobeys or missed the slide show presentation, and as such, they were asked to skip this question. The students who responded with YES felt they now knew a lot more about how exercise and nutrition work together and how to apply this to their everyday lives. Some even commented that they were able to change their eating habits to be healthier. These students felt that hearing about nutrition from a dietician made them more conscious of their health and how important it is for their entire life. Eleven students also responded to the question with a NO. A general theme from responses to this question was that students felt they had heard these messages all before and it was not very interesting. Moreover, several felt that they already ate a healthy diet.

Summary of Student Responses

- Students liked having a choice in the activities for their workout. This is evident by the large numbers of students engaged in each activity.
- Students liked being involved in a workout with their friends. This is particularly evident by the group who switched to Zumba when the yoga video would not switch to a more difficult level. It was not yoga they wanted as much as doing the activity with their friends.
- Personal goals varied as was evident by students who wanted to work out with the lights turned low, students who wanted to improve their fitness for a particular sport, students who just wanted to be with their friends and the activity was less important than their friends.

Implementing the Project: Teacher Experiences

There was a positive energy throughout the lessons that comprised the intervention that was different from the days when the class was involved in “traditional” units such as volleyball or soccer. I love the happy, busy sound of students getting their activity set up and waiting until everyone was finished journaling and ready to get started.

Toward the end of Phase Two I had reached the point of being a facilitator where I could engage with the students in the activity. I was no longer trouble shooting or stomping out potential problems in technology. Although there were still a couple students who remained resistant to the activities, 97% of the class responded that they seldom or never chose to sit out of the class. This number is identical to the initial survey with 3% of the class responding they often sit out. The majority of the class participated in the class activities. There were two students who remained disengaged no matter what the activity. They were able to participate in the activity only if they were in the right state of mind, so they claimed. It would have been nice if the project had drawn these girls in and helped them to overcome their personal difficulties. I was especially interested that these girls did not change their behaviour over the course of the study even though they were introduced to a variety of new activities.

This class also had one student with special needs and had an educational assistant. This student was scared about hot yoga so she did not come to school on that day. She felt that if a waiver had to be signed by her parents it was not safe to participate. She was happy to do a work out video with other students and showed enjoyment while participating in all in school activities.

Even though I came to embrace the role of facilitator toward the end of the intervention, I felt the students needed more direction in Phase Two of the project. Here they were given choices to make and needed to be more intrinsically motivated to work out. They were not familiar with keeping a journal in physical education and this part of the intervention also required a fair amount of teacher-led direction. Some students lost interest in their activity before the time was over so I would have to use motivational sayings that I employed in my regular teaching; like “hard work pays off” “push yourself” “get to the next level” and things like “only 3 minutes left” and “you can do it”.

As Phase Two was being implemented, I was always thinking of the 18% of my class who do not like physical education, and those who say physical education is not a good part of their day. To address this, I allowed students to work with a partner or in groups so that they could be with their friends so long as everyone was on task. Students could also use their own iPods for music if they chose (which they are not usually allowed to do in physical education at GLHS). They were also encouraged to drink water when they switched activities. The cliques or friendships I had observed within the class remained dominant throughout the study. I had hoped that these would disappear and students would focus more on their personal fitness goals. While there were some moments when I felt students were more focused on the activity than they were on how they appeared to their peers, on the whole, students’ personal image was still an important factor in the physical education lessons. A few students were able to move from one group to another to do a different workout but many felt more comfortable to work out with friends, in several cases ignoring their own goals to do so. Students showed a strong desire to be with their own friends and allowing students the choice to plan their own

workout meant they would choose to do it with friends and not mingle with too many others in the class. Part of the enjoyment came from being with friends.

How these various friendship groups or cliques relate to each other makes up the social structure of the class. The teacher is part of the class social structure as well. In every class there will be some students who relate positively to the teacher and others who do not, even if the teacher is a good one. The code of conduct at GLHS is based on respect. This code states that students respect others, equipment, and come to school prepared to learn. It also means that teachers treat others with respect as well. An atmosphere of mutual respect will create a positive place to learn. As I examine the data to determine if students were able to build new relationships and change the social structure of the class during the study, I found a slight increase in enjoyment in physical education. I also felt the study helped to build class spirit.

The students understood they were involved in a special project that the other physical education classes were not involved in. I truly felt they loved the Zumba class the most and it would have been nice to have the instructor back in for a second round of instruction before they had to make the switch to using a CD. If more funding was available, I would have made an attempt to do that as Zumba is certainly not something that I could lead the class in.

Chapter Summary

This chapter has discussed the project findings beginning with Phase One and the results of the initial survey. I separated the results into three sections; Enjoyment in physical education, Value in physical education, and Skill in physical education. Phase One and Phase Two were discussed using my observations as recorded in my field notes. Next the results of

the final survey were described using the same sections of Enjoyment in Physical Education and Value in Physical Education. Finally my thoughts on implementing the project were examined. I found that students appreciated having choices and they worked harder when they had personal goals and when they were in groups where they felt comfortable. I also came to realize that students who had personal goals worked harder than those who were unsure of their goals.

Chapter Six

Conclusion

Introduction

In this final chapter I will make conclusions about what I learned from conducting the study by considering the extent to which I was able to address the research questions. By making connections to the literature, I will offer recommendations for (a) future research, (b) teachers and teaching practises, and (c) physical education curriculum.

Summary of the Main Findings

The *main research question* is:

- *How, and to what extent, do involving female students in curricular decisions affect their involvement, engagement and participation in high school physical education?*

The results of this action research study found that grade ten female students at GLHS were motivated and engaged in physical education when they are involved in curricular decisions. By participating in several activities that students expressed interest in trying (such as Zumba and yoga), I was able to offer them a chance to engage in forms of physical activity that they thought they might find meaningful. There are barriers that hold students back from meaningful participation in physical education. This study attempted to use student input and student choice as a method to overcome the barriers and I found that 97% of the students enjoyed having input into their learning.

I felt this might provide them with some sense of ownership and autonomy in the physical education class. In turn, I feel that this might encourage them to find a form of physical activity that they may engage with long-term. Although I felt the intervention was positive and worthwhile both for me and the students, I also found that teacher guidance and encouragement are essential in order to get curricular innovations running that offer student choice. A lesson for teachers who are considering implementing a similar innovation is that there is a considerable amount of work to be done prior to, during, and after implementing the innovation—perhaps more than is involved when teaching “regular” lessons.

The first sub-research question is:

- *From my perspective, do students put forth more effort in individual or partner activities than the traditional team-sport based activities? What motivates girls to be active?*

I found that there is a place for both team-sport activities and individual or partner activities. Students appeared to be more motivated when they have an educated choice and can set their personal goals for fitness. By having a choice in the activities to participate in, the girls were motivated to try harder. However, I was also surprised by the mostly positive survey responses of students’ experiences of “traditional” physical education curriculum in the form of team-sport based activities. As I mentioned in Chapter 5, perhaps it is not the inclusion of team sports in physical education that acts as a major barrier to female participation but rather the ways that team sports tend to be taught. This argument has been made by scholars who advocate, for example, student-centered pedagogical models such as Teaching Games for Understanding (Butler & Griffin, 2005) and Sport Education (Siedentop, Haste, & van der Mars,

2004). From observing and teaching with the students throughout the intervention, I felt that they loved to try new activities and to do them with their friends, whether sport-based or individually.

The second sub-research question is:

- *Which individual or partner activities would most girls in the class want to participate in at a level that improves their fitness? What makes these activities more attractive to girls?*

This class showed an overwhelming interest in both Zumba and hot yoga. These activities were attractive because they were new for most students and also provided an activity that they could do on their own outside of school. There has also been an increased amount of attention placed on these activities in the popular press, primarily because they are fairly “new” activities that arguably carry some novelty with them. Both of these activities are relatively new to PEI and therefore these students and their families are less familiar with them. Many students would have gone home to share their experience. Zumba continued to be popular and be a favorite of the girls even when they had to use a DVD. Yoga started strong but the remote control was lost and so impossible to advance to a higher level and so these students became bored. From this, I learned that students wanted to be challenged. This stands in contrast to some teachers’ perspectives of girls’ attitudes toward physical education. For example, Wright (1997) showed how some male teachers felt that girls were naturally disinclined to physical activity. Wright (1997) showed that this stereotype was perpetuated in these classes because the teachers consistently delivered lessons to those who showed interest

in the team sport-based lessons, that is, boys. However, through my research I found that girls' attitudes are affected by the activities that are offered and the ways in which they are taught. Girls don't have to have negative attitudes toward physical education, and my findings suggest that offering activities that they specifically show interest in may increase those attitudes.

Through the study I was not able to find concrete evidence to show that high school girls would prefer individual or partner activities rather than the traditional sport-based model. The findings in this study seemed to point more to a combination of these activities with the class participating in this decision making process together to negotiate the curriculum for the semester. Students in this study enjoyed the hot yoga and zumba sessions most but also liked being able to set their own goals and pick the work out to meet their goals. Students enjoyed doing activities in groups with their friends. This suggests that individual or team goal setting in team sport units may offer a way for some students to find the content of those lessons more personally meaningful.

Students who have had positive experiences in the past are likely to continue to enjoy physical education in the future and likely choose it as a course option in grades 11 and 12 (Gibbons and Humbert, 2008). In this study at GLHS, 18% of the students responded that they do not enjoy physical education so they will likely have negativity towards any new activity as well. In some ways, their choices during the intervention may be based on their negative experiences of physical education prior to the study (that is, they may have made choices that were unlike activities they had participated in previously). This creates a challenge for the teacher when introducing new activities to the students. What have they heard from others

about this activity? Are they well prepared before the activity begins about what to expect? To what extent do students personally enjoy something compared to enjoying something because their friends or peers do or because it may be popular at the time?

In this class 83% of the students responded in the initial survey that they frequently or often enjoy trying new activities. From my observations, I saw this to be true. Many were positively motivated at the prospect of a new activity. Some had a lot of questions and needed to be reassured that it would be fun by knowing what to expect ahead of time. For example, there were a lot of questions leading up to the trip to the hot yoga studio. Only a few students did not attend the class. Perhaps if we had gone a second time they would have joined after hearing the positive response from the class. The fact remains that many of the problems for students who resist participation in physical education begins long before they get to high school (Gibbons and Humbert, 2008).

This study has been able to add to the body of knowledge that is available on using student input into the physical education curriculum design. This student input has been seen to motivate students to participate at a high level and to take personal ownership of the program. Student voices must be heard if they are to find physical education more personally meaningful and relevant (Enright & O'Sullivan (2010). This study was able to show that when students are heard and their input is treated as valuable, they enjoy physical education. Insights gained from this study can be used by researchers to look for new ways to engage high school girls in physical education.

Recommendations for Future Research

Future research should focus on alternate ways to include students into the curricular design process. A suggestion may be to survey the class from the previous year for feedback about the curriculum. With this information, a survey could be given to the new class being careful to only ask for input on activities that are possibilities to include and have value to the curriculum. For example, more research needs to be done on the topic of individual or partner activities vs the team sport based model many schools use now. I had assumed that many females in my classes would not or did not enjoy team sports activities, however, the responses to the surveys administered in Phases One and Two of the research suggested this was not necessarily the case. Further research might offer more clarity on the reasons why some females do not enjoy team sports in physical education. As it appears, it is not the nature of the sports but perhaps points more toward the pedagogies used to teach sports that are in need of close attention.

Recommendations for Teachers and Teaching Practices

If teachers are considering implementing a similar innovation in their programs, I have several recommendations. An important component is that the introductory lessons must be well taught and not rushed. Students must experience the lesson so they will be able to make an informed decision if this is an activity they would like to do more of. Introductory lessons should be longer than one class, perhaps a mini unit with the entire class so that students truly experience what the workout feels like and which muscles it works.

Another recommendation is to consider the expertise around the school or community that the school physical education department can tap into to accomplish some of the goals of offering students a new variety in their physical education curriculum. Perhaps there is a teacher in the school who is trained in Pilates or Zumba or even martial arts. The physical education teacher could switch classes to allow an extension to her program and cover the other teacher's class for a period. Every community has different resources that can be tapped.

There is also much to be said for taking the time to teach students how to use technology and equipment in physical education so that when they are given choice within a particular class, they can set it up for themselves. This includes things like moving the spin cycles around if they need to put them in a different place, possibly in front of the smart board to follow a spin cycle CD. Knowing how to load a CD onto the computer to follow on the smart board or on a TV is also necessary. Students should be able to select music that has lyrics appropriate for school and set it at a volume that does not disturb other classes. As such, student choice goes beyond the units of work they are doing, extending to elements of the class that can foster motivation and meaning. One of the biggest challenges I faced throughout the project was dealing with logistical and technical matters that influenced the running of the class. Several of these were beyond my control but certainly had implications for how students experienced the classes and derived enjoyment from them.

I recommend to teachers of grade ten girls to use a combination of individual or partner activities along with team sports and games in a variety of settings. These should be negotiated with the class at the beginning of the course and a commitment made by all students to

participate to the best of their ability even if the activity was not their personal top choice. Teachers should also make a commitment to honour students' choices of activities; even if it includes activities they are not familiar with or are uncomfortable teaching. Further, teachers should consider the ways in which they teach activities to students. For example, teachers should employ Teaching Games for Understanding or Sport Education; two pedagogical models that aim to teach sports in ways that are more inclusive, cognitively engaging and demanding, and contextually-based than the traditional skill-drill-modified game format of sports teaching.

Another recommendation for teachers is to use community facilities that are available at a low cost to expose students to physical activity options available outside of the school building in their own communities. Work with these organizations to provide free or low cost introductory lessons which will encourage students to come back on their own or with friends.

Physical education teachers should work with student services to determine how to help the small percentage of students who come to class completely disengaged. Physical education teachers may be able to reach these students if they understand more of the underlying issues that are barriers to student participation in physical education.

Recommendations for Curriculum

Physical education curriculum for high school girls needs to be student-centered. It needs to offer a wide range of experiences both within the school gym, outside on the playing fields and exposure to community organizations. As such, curriculum documents for adolescents (particularly females) might be more appropriately written as general guidelines rather than onerous documents that seek to have students attain a wide variety of outcomes.

That is, teachers should have flexibility to implement a curriculum that is contextually and culturally relevant to the students who are enrolled in the courses.

In a general sense, physical education curriculum should strive to achieve a life-time love of physical activity within every student. Most individuals stop playing sports at a relatively early stage of adulthood, and as such, perhaps a focus should be directed toward activities that individuals tend to participate in for a lifetime, such as personal fitness activities (Zumba, yoga, dance, aerobics, endurance running/walking). As such physical education curriculum should be divided into different streams where students have a choice to take the traditional sport based curriculum or a course option that explores avenues to personal fitness.

Personal Reflection

As I approach the end of writing this final chapter, I am aware of the time and energy required to do an action research project of this size. By doing an action research project I was able to identify a problem that I see in physical education and work to find a solution. This experience has brought new insight into my teaching as I look for ways to engage girls in physical activity at a level that improves their fitness. Of particular value is offering the students choice in the activities they participate in, exposing the students to new fitness options that perhaps they had not tried before and using student input into the course design. I have also learned that many of my students love the traditional sports included in the past and would not want to miss out on those.

Completing this project also made me more aware of the value of engaging with physical education research – both in terms of accessing the work of others and conducting my

own research. I loved the literature review. This forced me to dig into other research that had been done that looked to answer similar questions as I had. The work of Sandra Gibbons was especially meaningful to me as she worked with girls in physical education to establish meaningful participation for her subjects. Already there is much research that has been done to identify ways to engage high school girls more actively in physical education.

In the future, I would like to continue to introduce my classes to new fitness activities that are popular within their community. This may take additional funding and time to organize. I will also look to try new approaches to teaching in an effort to fully engage all of my students. It is my hope that we are able to offer physical education programs that are meaningful and personally engaging to all students.

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Appendix A

Physical Education Questionnaire

Answer each of the following questions by circling the most appropriate answer. Use the following rubric: Frequently = 5-6 times/week, Often = 3 – 4 times/week, Seldom = 1 – 2 times/week and Never = 0 times/week

1)	How often each week do you enjoy participating in physical education?	Frequently	Often	Seldom	Never
2)	How often each week do you sit out of an activity during PE class?	Frequently	Often	Seldom	Never
3)	How often each week does the class get to choose the activities they participate in in PE?	Frequently	Often	Seldom	Never
4)	Do you feel that physical education is a valuable part of your day?	Frequently	Often	Seldom	Never
5)	When the activity is a team sport, how often do you enjoy participating in physical education?	Frequently	Often	Seldom	Never
6)	When the activity is an individual one, how often do you enjoy participating in PE?	Frequently	Often	Seldom	Never
7)	How often each week do you feel you have the skill to participate at a competitive level with your class?	Frequently	Often	Seldom	Never
8)	How often each week do you participate in physical activity outside of physical education?	Frequently	Often	Seldom	Never
9)	How often each week do you meet friends to participate in physical activity outside of physical education?	Frequently	Often	Seldom	Never
10)	Do you enjoy trying new activities?	Frequently	Often	Seldom	Never
11)	Do you feel happy during physical education class?	Frequently	Often	Seldom	Never

12) Do you feel you have learned enough about fitness in physical education class to maintain an active lifestyle once the course is over?

13) Think about a time in the past when you really enjoyed a physical education experience. How was that different than your current course? What made it so enjoyable?

14) What suggestions do you have that would make the current physical education class more enjoyable for you?

15) If you could change one thing about your current physical education class, what would it be?

- 16) Please check all of the following types of activities you would be interested in trying during your Physical Education Class.

	Ball Sports		ParaSports		Disc Sports
	Ball Hockey		Wheelchair Basketball		Ultimate
	Basketball		Boccia		Disc Golf
	Field Hockey		Goalball		Aerobic/Fitness Activities
	Football		Outdoor Activities		Treadmill Running
	Rugby		Hiking		Dance
	Soccer		Orienteering		Stability Ball
	Volleyball		Racquet Sports		Step
	Track Sports		Badminton		Weightlifting
	Relay Races		Tennis		Hot Yoga
	Long distance Running		Table Tennis		Zumba
	Sprints		Other Activities		Rowing
	Target Sports and Games		Bowling		Field Sports
	Archery		Spin cycle classes		Discus
	Darts		Add your own		High Jump
	Shooting				Javelin
					Long Jump
					Shot Put

Thank you for completing this questionnaire.

Appendix B**Physical Education Participation Post-test Survey**

Please take a few moments to answer the following questions as accurately as you can. Feel free to write as much as you need to.

1)	How often during the lessons did you enjoy participating in physical education?	Frequently	Often	Seldom	Never
2)	How often during the lessons did you sit out of an activity?	Frequently	Often	Seldom	Never
3)	How often did you feel the lessons were valuable to your overall health?	Frequently	Often	Seldom	Never
4)	Did you feel that physical education was a valuable part of your day?	Frequently	Often	Seldom	Never
5)	How often did you feel the lessons were benefitting your level of fitness?	Frequently	Often	Seldom	Never

6) Did it matter to you that you had some choices? Why?

7) What was your favorite activity? Why?

8) Did you feel the project you were involved in encouraged you to participate more actively during the class? Why?

9) Part of the project was lessons on nutrition. Did the trip to Sobeys, the slideshows by a dietitian, the handouts and class discussions change your approach to fitness? Why?

Thank you for taking the time to complete this survey!

Appendix C

August 27, 2012

Mr. Tim Fletcher, PhD
Assistant Professor
School of Human Kinetics & Recreation
Memorial University of Newfoundland
St. John's NL A1C 5S7

Dear Professor Fletcher:

In the 2012-13 School year, Great Lakes High School will deliver a physical education course to grade ten students using different approaches to increase engagement and to promote physical wellness on a more individual basis. This initiative is being pursued with two classes to find ways to motivate grade ten students who do not readily engage in the more traditional sport based curriculum.

Mrs. Esther Hovingh will teach this course and, as a part of her ongoing work as a teacher, will try new teaching methods and collect information regarding the success of these approaches. I am aware that she will collect information from her teaching for her graduate project, "Cultivating Positive Attitudes and Participation in High School Girls Physical Education" in her reflective journal and field notes. I give permission for Mrs. Hovingh to use this information for her graduate project.

Mrs. Hovingh is wished success in this important project and in the completion of her graduate work. The information she gathers will assist in determining future course offerings and teaching practices.

Sincerely,

E. Susan Willis
Principal

Appendix D

Weight Room Circuit

For each exercise indicate the weight used and the number of repetitions!

	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6
Step Ups						
Bicep Curls						
Dumbbell Lunges						
Push up Pyramid						
Sit ups With Med ball						
Bench Press						
Back Extension						
Incline Bench Press						
Skull Crushers						