IMPLEMENTING STUDENT-DIRECTED LEARNING TO COMBAT BARRIERS IN
PHYSICAL EDUCATION CLASSROOMS

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Abstract

The declining enrolment in physical education points to a disconnect between the Ontario curriculum’s goals and the actual outcomes seen in our physical education. Using semi-structured interviews, data is collected from three physical education teachers. Several barriers specific to physical education are identified. These include barriers in the classroom (under the teacher’s control), wide-scale barriers, and barriers that are not mentioned by the teachers interviewed in this research (suggesting a gap in teacher education). Student-directed learning is beneficial for creating safer and more comfortable learning environments with improved engagement, ownership of learning, creativity, and minimized or eliminated barriers.

Key Words: physical education, barriers, student-directed learning
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Chapter One: Introduction

1.0 Research Context

Currently, Canada consists of a large population of people that are considered sedentary. According to Statistics Canada (2014),

…close to half (48%) of Canadians aged 12 or older were inactive in their leisure time in 2005. As well, 25% reported that they usually sit most of the day. And during a typical week, 41% spent less than one hour walking to get to work or school or to do errands.

Being physically active can reduce the risk of cardiovascular disease, some cancers, osteoporosis, diabetes, obesity, high blood pressure, depression, stress, and anxiety (Statistics Canada, 2014). Living a sedentary lifestyle exposes people to these health risks. The health-related issues also place a huge strain on our health care system. In fact, Statistics Canada (2014) found that, “the economic impact of physical inactivity can be substantial and has been estimated at $5.3 billion, or 2.6% of total health care costs in Canada in 2001.” Inactivity is occurring at all age levels including elementary and high school aged children. Daily physical education has dropped from 42 percent in 1991 to 25 percent in 1995 for students in the secondary level (Chyen et al., 2004). Education may be a key solution in reversing these trends. Teaching students how to live healthy and active lifestyles lowers the risk of the health-related issues, improves the population’s health status, and lessens the strain on our health care system. In recent years, physical education has made a push towards promoting lifelong physical activity
in youth (Ballard & Chase, 2004). The current Ontario curriculum is no different, also focusing on promoting healthy and active living throughout life (Ministry of Education, Ontario, 2011).

1.1 Research Problem

Despite, Ontario’s commitment to promoting life-long active and healthy living in physical education, the implementation seems ineffective. Sedentary lifestyles and the associated health risks continue to rise. According to Brener, Kann, & Kolbe (2001), more and more high school students are opting out of physical education courses when they are no longer mandatory. But why is this the case? van Daalen (2005) states that, "physical activity is essential for health. However, when it brings with it competition, evaluation, and degradation, it is a recipe for disaster.” This suggests that although the Ontario curriculum appears to have good intentions, there is a disconnect with the implementation of the curriculum. Students are having poor physical education experiences or are unable to access physical education. Regardless, there are barriers that exist that are preventing students from learning why and how to stay active. It is important that the physical education community works to create more inclusive and safe learning environments.

1.2 Purpose of the Study

The goal of my research is to identify barriers that exist in physical education and explore teaching strategies that can help mitigate these barriers. Furthermore, I aim to explore the
effectiveness of using student-directed learning as one of the strategies to eliminate barriers. Student-directed learning is a strategy that involves teacher and student collaboration to make decisions about how and what students want to learn. The educational community can use this information to improve physical education and research these concepts in more depth. Ultimately, this can create safer and more comfortable learning environments in physical education that caters to a more diverse group of students. This may create more positive physical education experiences for students, instilling lifelong healthy and active skills and knowledge.

1.3 Research Questions

My research question asks,

in what ways can student-directed learning eliminate or minimize barriers in physical education classrooms at the secondary level?

In my sub-questions, I address issues surrounding inclusivity in physical education classes by identifying a) what motivates and encourages students to participate or demotivates and discourages students from participating. This further identifies b) what factors or barriers exist in the physical education curriculum and classrooms that lead to this lack of motivation and participation. It raises awareness for physical education teachers to provide a better understanding of these barriers and possibly leads to discussions in c) how to minimize barriers to create a more inclusive classroom. Ultimately, with this knowledge, teachers can promote and instil the importance of living a healthy lifestyle in students at a young age, reversing the current trends in physical inactivity.
1.4 Reflexive Positioning Statement

Growing up, I was always encouraged to be active. I was put in lots of sport activities that were both competitive and noncompetitive. I was also very coordinated and athletic as a child which allowed me to master almost all sports. I always liked participating in sports, especially competitive sports. I do not recall feeling limited or excluded in sports or physical education as a female, possibly due to the fact that I was so athletic. I continued, throughout high school and university, to participate in sports inside and outside of school. I decided to pursue kinesiology during my undergraduate studies. This is when I became aware of the severity of the growing obesity rates, increasing sedentary lifestyles, and the health-related risks associated. I began to think of ways to promote healthy lifestyles. I arrived at the idea of targeting students in a classroom as a way to promote healthy lifestyles. I am currently pursuing my teaching certification and I strongly believe that we can achieve change in schools.

It is important to note, I am currently studying at OISE. I am enrolled in the Masters of Teaching program and must complete this Masters of Teaching Research Paper as a requirement to graduate from the program.

1.5 Overview

Sedentary lifestyles and the health-related risks continue to increase despite the promotion of healthy and active living in the Ontario curriculum. I aim to identify barriers that exist in physical education and explore strategies that can minimize or eliminate these barriers, such as student-directed learning. This can improve physical education, creating more positive
physical education experiences for students, instilling lifelong healthy and active living. In the next chapter, chapter 2, I outline the current research surrounding this topic. Chapter 3 outlines the methodology used to conduct the research, chapter 4 includes the data analysis and discussion, and, finally, chapter 5 discusses the implications and significance of the research.
Chapter Two: Literature Review

2.0 Introduction

The current literature speaks to several barriers that manifest in physical education. This includes barriers that manifest within a classroom, such as gender and body image, skill acquisition and ability, method of evaluation, lack of interest and variety, religion and culture, and weight and obesity status. It also explores barriers that have a wide-scale effect, such as a lack of value placed on physical education and poor elementary implementation of physical education. Literature regarding student-directed learning is also discussed as the focus of my research to explore how student-directed learning can minimize or eliminate these barriers in order to create a more positive physical education experience for all students.

2.1 Barriers that Manifest in the Classroom

There are several examples of barriers that manifest within the classroom. These barriers include gender and body image issues, skill acquisition and ability, method of evaluation, lack of interest or variety, religion and culture, and weight and obesity status. These seem to impact some students which can ultimately create a negative learning environment and a poor physical education experience. In order to promote lifelong healthy and active living, teachers must take on the role of mitigating these factors. Later in the research, I put forth a teaching strategy,
student-directed learning, as a strategy that can possibly be effective in minimizing or eliminating these barriers.

2.1.1 Gender and Body Image

In the literature, there are several aspects of gender issues that come into play. Females, including athletically gifted and competitive females, as well as, non-athletically gifted and noncompetitive males are generally found to be excluded or uncomfortable in physical education within the literature. Furthermore, body image issues also need to be considered in maintaining a comfortable learning environment.

Females face an array of factors that may impact their comfortability and motivation to participate in physical education. "...in many Western countries (e.g. USA, Canada, Spain), girls were considerably less active than boys" (Elliott & Hoyle, 2014). This is a concerning statement to consider when reflecting on physical education programs.

There are a number of gender-specific barriers that might diminish the PE experience for secondary school girls; these include inappropriate PE uniform, a belief that PE is less important for career plans than other subjects, a dislike of the competitive elements of sport, not being good at or interested in PE, self-consciousness and embarrassment and a negative perception of physical sensations Browne (1992), Dwyer et al. (2006), Flintoff and Scraton (2001), Garcia et al. (1995) and Williams and Bedward (2001) (Elliott & Hoyle, 2014).
In one study,

girls articulated that male dominance, along with males’ aggressive and competitive nature, has been a major obstacle to their engagement and enjoyment within coeducational classes (Azzarito 2009; Azzarito and Solmon 2006; Azzarito, Solmon, and Harrison 2006; Derry 2002; Fisette 2011b; Garrett 2004; Griffin 1984, 1985a, 1985b; Lirgg 1993; Oliver and Hamzeh 2010; Oliver, Hamzeh, and McCaughtry 2009; Ronholt 2002; Treanor et al. 1998; Wright 1997, 2000) (Fisette, 2013).

Even more concerning,

…girls expressed that they would do almost anything to avoid being embarrassed in physical education. In an environment that is exceedingly public, these girls had to conform and balance their participation knowing that they had to participate for grade purposes, yet simultaneously resisted this notion by ‘blending in’ or retreating from the action (i.e. making themselves invisible) to avoid opportunities where they could potentially embarrass themselves (Fisette, 2013).

Furthermore, “participants repeatedly discussed their deepest feelings on the impact of boys’ control of game play” (Fisette, 2013). In many cases, females are exposed to poor learning environment in physical education because males often dominate the class. Interestingly, “male dominance in coeducational classes left the participants feeling ignored and invisible, which ironically motivated them to attempt to gain credibility from
the boys” (Fisette, 2013). “…there were times the participants used it as an opportunity to
‘prove themselves to the boys.’” (Fisette, 2013). In some cases, it appears the females use
the exclusion as motivation to participate as a way to prove that they deserve to be there.
Unfortunately, I think this is an ineffective and possibly discomforting motivation.

Male students may deal with several factors that can impact their comfortability
and motivation to participate in physical education. Most of these factors found in the
literature, generally stem from the misconception that males always excel in sport.

Boys who do not participate in sport are often marginalized due to the cultural
perception that sport is a primary site for the social construction of masculinity
(Davison 2000, Whitson 1990). …boys who are good in sports are often afforded
the privilege of being popular among their peers, thereby enhancing such
elements as self-esteem, self-image, and masculine identity due to the creation of
dominant and subordinate groups. Boys who are less athletically skilled are often
ridiculed, which can negatively impact their self-perception (Swain 2000,

Even more concerning,

…the problem faced by boys who are less athletically skilled is the possibility of
total absence from all forms of physical activity during childhood and
adolescence. By disassociating themselves from sport and physical pursuits, boys
further minimize skill development, thereby limiting confidence to enter many
forms of physical activity (Murray 2003).
It is clear that males who are not able to become this masculine, jock-like figure in physical education, generally, are excluded and even ridiculed. This creates a hostile and uncomfortable learning environment that can lead to an avoidance of physical activity all together. This reverses the goal of instilling lifelong healthy and active living.

2.1.2 Skill Acquisition and Ability

Students can have an array of abilities and skills where they are highly able to or require extra support to complete activities and assignments. A physical education classroom that uses extremely challenging activities or that are highly focused in acquiring a skill may be detrimental to some students that are not as athletically gifted. “In accordance, Koca et al. (2009) noted that for a significant number of students ‘feelings of inadequacy compromised any desire to participate in PE’ "(Barlow-Meade, Littlefair, & Wilkinson, 2013). Furthermore, it was "found that the lack of opportunities provided for those ‘less able’ students to develop their abilities created a situation in which many students struggled ‘simply to avoid failure than strive for success’ (Robinson, 1990)” (Barlow-Meade, Littlefair, & Wilkinson, 2013). Interestingly, “many [students] expressed their boredom from being under challenged by sport activities that did not contribute to their fitness or interest levels…” (Rikard & Banville, 2006). This illustrates the need to provide students with challenging tasks they can succeed in by making sure they are ability and skill appropriate. Students that have lower
physical competency skills may also be ridiculed in the classroom, further creating a more uncomfortable and hostile learning environment.

…there was an awareness that for individuals with a poorer ability in PE, working in a team was less enjoyable. Some students were felt to “take the game too seriously” and get very competitive. In these circumstances, less able team members were picked on for letting the side down. It was felt that this was detrimental as it would affect their confidence in playing (Mulvihill, Rivers, & Aggleton, 2000).

Students with physical disabilities may face barriers to participating in physical education. “Despite their mostly favourable beliefs about inclusion, several teachers felt inadequately prepared or lacked support and resources to effectively teach students with more severe disabilities” (Hodge, Ammah, Casebolt, Lamaster, & O’Sullivan, 2004). Furthermore, “competitive, performance-oriented and heavily sport-based programmes limit students’ participation and experience in physical education especially those with physical disabilities” (Haycock & Smith, 2010). This type of classroom environment may have similar effects on students with lower physical competency skills as well. It is clear that students with physical disabilities also face barriers to physical education.

2.1.3 Method of Evaluation

Teachers that implement poor assessment and evaluations, based on student interpretation, may discourage and demotivate students in physical education.
Some teachers grade based on the mastery of a skill determined by a standard. This form of evaluation can discourage participation among students. An emphasis on mastery based on a standard tends to demotivate low-performing students because they don’t believe they can reach the criteria. High-performing students may also lose motivation because if they can already reach the criteria they may feel they do not need to put in more effort (Melograno 2007).

This illustrates one example of standard-based evaluation that demotivates high and low performing students.

Assessment should be viewed as a process through which learning can be promoted, and that the satisfaction of this learning intent through the authentic, valid and socially just alignment of assessment, curriculum and pedagogy is a basis for claims of efficacy (Hay & Penney, 2009).

It is important for teachers to consider methods of evaluation that achieve this to prevent students from becoming discouraged and demotivated.

2.1.4 Lack of Interest and Variety

Physical education that is fun and interesting and incorporates a variety of activities can motivate students to participate. When this is not the case students may lose interest. "Motivational research literature has identified fun and choices as effective strategies to intrinsically motivate students to participate in physical activity/education (Chen & Ennis, 2004, Hellison & Walsh, 2002)" (Li, Rukavina, Sutherland, Shen, &
In many cases, students begin losing interest in physical education as they progress through school. A fundamental requirement for developing a successful physical education program is to interest and motivate students to learn the intended objectives" (Mowling, Brock, Eiler, & Rudisill, 2004). The lack of interest in physical education is an alarming fact that seems to be mitigated by creating fun and interesting activities. In order to achieve this, teachers must be aware of their students’ interests. In one study that explored high school student attitudes in physical education, student complaints about the lack of variety in the curriculum were noted in almost all focus groups. For those schools with elective PE programs, the programs were criticized for lack of sufficient choices… One suggestion made by a number of students in different focus groups was the inclusion of games they once played in elementary schools such as tag games and kick ball, where students could have fun and be active. Other students suggested incorporating specific types of activities such as outdoor activities (e.g. rock climbing, in-line skating, bicycling), and sports they have never done before like yoga, Tae Boe, roller hockey, disk golf or step aerobics. A small number of students suggested the addition of gymnastics and dance activities (Rikard & Banville, 2006).

This highlights the diversity in students’ interests, pointing to the importance of getting to know your students.
2.1.5 Religion and Culture

Although not as prominent in the literature specifically related to physical education, religion and culture can act as a barrier for students. Dagkas (2007), in a study that explored teachers’ experiences teaching to students with diverse cultures and religions, found that all the teachers identified situations where Muslim students, in particular, faced problems during physical education due to religious and cultural reasons. Religion and culture are not prominently addressed in a physical education context, suggesting the barriers that students face due to religion and culture are most likely evident in all subject areas.

2.1.6 Weight and Obesity Status

Finally, weight and obesity status may create barriers for some students that lead to unsafe or uncomfortable learning environments.

…overweight/obese pupils are more likely to have PE dislikes/barriers. The most common barrier reported among the overweight/obese subjects, was a dislike of running/sprinting activities. Other barriers reported include: unenjoyable/boring activities, tiring and physically unpleasant activities, lack of an adequate range of activities, too competitive PE environments, dislike of PE assessment and dressing out procedures, being dominated by skilled pupils or put into low-ability PE groups and fear of weight-related teasing/ridicule by peers (Jacobson, Laws & Potter, 2012).
This highlights several factors that impact students with weight or obesity issues. However, it appears that several of these factors can be mitigated by the classroom teacher, illustrating the importance of being aware of students that may be struggling with these problems.

2.2 Barriers that Affect Physical Education on a Wide-scale

Barriers that have a wide-scale effect on physical education are discussed as they influence students' experiences and enrolment in physical education. With that said, these barriers are not the focus of this research, as I am exploring strategies that minimize or eliminate barriers at the classroom level.

A poor implemented, content-heavy, or inflexible curriculum may be one barrier that can have a wide-scale impact on students. Curriculum such as this prevents students from choosing what they want to do in physical education, which can result in a boring, uninteresting class.

When asked to describe their opinions about various curricular aspects of their experiences in physical education classes, most students agreed, “I would like to be able to pick my own activities" (75.5%), "I would like to be able to tell the teacher the activities I would like to do" (73.6%), 50."I would like to choose what group of students I participate with" (61.0%), "I would like to be able to work at my own pace" (55.7%), and I would like to do a greater variety of activities" (54.0%) (Couturier, Chepko, & Coughlin, 2005).
Further highlighting this point, it was found that physical education was overlooked in the elementary level because “most teachers perceived the curriculum to be far too crowded” (Morgan & Hansen, 2008). Similarly, poor implementation of physical education at the elementary level and a lack of value on physical education in society is another barrier that has a wide-scale effect. It is common that physical education is the last subject to teach or elect, as other subjects are more valued. “…competition with other subjects was the main barrier preventing teachers [at the elementary level] from incorporating regular and sufficient PE into their weekly program… most admitted PE was the first to suffer” (Morgan & Hansen, 2008). This highlights the lack of value on physical education and the reinforcement in the elementary level of this attitude towards physical education. This can possibly influence some students’ decisions to enrol in physical education at the high school level as an elective, as well as, influence students’ opinions regarding healthy and active living.

2.3 Student-directed Learning

Student-directed learning is an approach teachers can implement that may minimize and eliminate barriers in their classrooms. For the purpose of this research, student-directed learning involves collaboration between the students and the teacher to make decisions on the content and the method of learning that is implemented in the classroom. It is meant to allow students to decide what they want to learn while still fulfilling curriculum expectations. The literature outlines the importance of student-directed learning or strategies that involve student collaboration and the benefits and challenges that follow.
Research findings, as well as newly adopted curriculum standards, continues to send a message to educators that the work of learning must be shifted from teachers to the ones doing the learning. That's because research and anecdotal evidence suggest that when students manage their own learning, they become more invested in their own academic success. Self-directed students also deploy critical-thinking skills more readily when confronted with challenging schoolwork (Saltman, 2012).

Similarly, Rikard & Banville (2006), strongly recommend that teachers solicit and consider student voices for curriculum modifications that are educationally appropriate and that increase participation and motivation. When student suggestions are implemented by their teachers, collaboration occurs and contributes toward improving student attitudes toward physical education and their motivation to participate.

It is important to note that student-directed learning can improve students’ physical education experiences, which, in turn, may instil lifelong healthy and active living. Furthermore, the more the teacher places value on the students' opinions, the more the students will be interested in the school curricula implemented (Chen & Ennis, 2004). The design in urban schools should have a built-in motivation aspect in the curriculum, which would include the students' interests about why they participate in physical activity (Ennis et al., 1999). When the students are motivated, they tend to take ownership of what they are learning… (Schmidlein, Vickers, & Chepyator-Thomson, 2014).
This highlights the improvement in student motivation, interest, and ownership of learning. It is clear there are several benefits to implementing student-directed learning into a physical education classroom. In addition, students seem to prefer to make decisions about their class and the activities they do. A study that collected data from the students regarding their physical education experience suggests that,

students would like more input into activity choices. The student voices in this urban school district were clear in their desire for "choices" within the context of the physical education curriculum. Students also want to choose the groups they participate with and to be able to work at their own pace (Couturier, Chepko, & Coughlin, 2005).

There are some concerns, issues, or challenges that the literature outlines when implementing student-directed learning. In one study, students were given the opportunity to input in the decision making process in a co-educational physical education classroom. “students had limited input (i.e. male athletes’ recommendations were considered) in the two activities that were offered due to the teachers’ unwillingness to ‘authorize’ the voices of all students in the physical education class (Cook-Sather 2002 )” (Fisette, 2013). Furthermore,

The participants associated the activities offered in physical education with a specific gender, that is, what society deems as gender-appropriate activities for boys and girls. On paper, it appeared that students got to ‘choose their activity’ out of two options; however, if students did not want their gender or sexuality questioned, they had to conform to gender expectations (e.g. activity selection) (Fisette, 2013).
Unfortunately, this shows that some student voices may be lost preventing minority groups in the class from being heard. In addition, providing students with voices in the class cannot control the influence of societal or peer pressures that can still silence voices. Concerns of building a framework for students to build the necessary skills to make decisions and the time and effort it takes to due so are also expressed in the literature.

Teachers pursuing student-directed learning report that, at least in the lower and middle school grades, it can take considerable effort to help pupils develop the thinking skills and self-reliance required to make decisions and to seek out answers that would otherwise be provided for them in a traditional teacher-directed classroom… Carol Dweck, the Virginia and Lewis Eaton Professor of Psychology at Stanford University, cautions that embracing student-directed learning without first establishing a framework to support students in challenging tasks can lead many students to give up or choose the easiest path when encountering obstacles. (Saltman, 2012).

It seems there may be ways to mitigate these concerns and challenges that teachers face when implementing student-directed learning, especially when considering the multiple benefits the strategy provides to students.

2.4 Conclusion

The literature outlines several barriers that manifest in a classroom including gender and body image issues, skill acquisition and ability, method of evaluation, lack of interest or variety, religion and culture, and weight and obesity status. Barriers that have a wide-scale impact are
also outlined such as a devalue of physical education in society, lack of time for physical education, and content-heavy or inflexible curriculum. Finally, benefits and challenges of student-directed learning are discussed. In the next chapter, I review the methodology of the research. I discuss the method of sampling and data collection, provide information about the participants selected, outline the ethics reviewed for the research, and speak to any limitations or strengths of the methodology.
Chapter Three: Research Methodology

3.0 Introduction

This research study explores ways in which barriers manifest in physical education classes and how using student-directed activities may help minimize or eliminate these barriers. Certain aspects of the research methodology are mandated by the university, where the research is taking place, based on the type of research being conducted and the time frame to complete it. A qualitative approach is used in order to provide detailed data in a complex context. The collection of data is conducted using semi-structured interviews. The participants, how they are recruited, and the criteria required for the participants to be considered appropriate candidates is discussed. The data is analyzed using a case study analysis and representation framework. Furthermore, any ethical concerns that arise from the methodology of this research are listed, along with the limitations and strengths of the method used.

3.1 Research Approach and Procedure

My research takes a qualitative approach that involves conducting semi-structured interviews. Qualitative research is conducted in order to study a group or population, identify variables that cannot be easily measured, or to shed light on silenced voices (Creswell, 2013). Furthermore, it provides a complex, detailed understanding of an issue. This detail can only be established by speaking with people and hearing their stories (Creswell, 2013). In this case, it
allows the voices of teachers, those immersed in the field of education, to come forth, to hear existing issues in the education system. This type of research is effective where numbers and statistics may not be able to grasp the complex contexts that these issues manifest in.

This type of research is well suited for the research question mentioned above. Specifically, it allows the researcher to gather a detailed understanding of the barriers that exist in physical education and how student-directed learning can help minimize these barriers. The complexity of factors that come into play in a physical education classroom cannot be adequately portrayed through statistics and numbers. Furthermore, the use of a qualitative study leaves room for the research to extend further. It allows the research to identify existing barriers and how student-directed learning may help minimize these barriers while also creating room for other suggestions to minimize barriers that are previously unknown. Teachers and researchers can become further informed from studying other teachers’ experiences, methods, and approaches.

3.2 Instrument of Data Collection

The instrument of data collection that is used is a semi-structured interview. Semi-structured interviews keep participants on track with the topic while allowing room for elaboration and expansion. It helps with the process of gathering a deep understanding of the topic by allowing the participants to add thoughts and experiences that the researcher may have not thought of, enriching the research. Semi-structured interviews suit the research topic very well. Participants being interviewed can expand their answers, providing experiences of barriers and methods or approaches to deal with these barriers that are not previously known by the
researcher. The loose style of the structure of the research allows physical educators to clearly express their experiences and concerns.

3.3 Participants

This section of the chapter discusses the criteria that is required for participants to be eligible for sampling, the process and procedure in which they are sampled, and background information regarding the chosen participants.

3.3.1 Sampling Criteria

The criteria that is required for teachers to be eligible for sampling is as follows:

a) *They must have two years experience teaching physical education.*

This is a requirement because it is important that the teachers are experienced enough to be able to recognize and identify the barriers that exist. They must also have enough experience in dealing with minimizing or eliminating these barriers.

b) *They must have conducted some form of student-directed learning during a physical education class.* This is a requirement because the focus of the research explores ways in which these barriers may be minimized by using student-directed learning. It allows them to provide input into how student-directed learning benefits students.
c) *They must be open-minded and have experience with a variety of different types of physical activities.* This is a requirement because it identifies teachers that are willing to and have tried a variety of different physical activities with the goal of encouraging lifelong fitness. This is an important quality in teachers if they are thinking about student-directed classrooms where all types of physical activities will shine through.

3.3.2 Sampling Procedures

A purposeful sampling procedure is used in this research as the framework for the recruitment of participants. This procedure involves purposefully selecting individuals and sites because they can inform an understanding of the research question (Creswell, 2013). Three teachers are chosen deliberately based on the criteria mentioned in the previous section. Information regarding the research was sent to my existing network of educators. Those teachers passed along the information to educators they knew. My information was provided to prevent participants from feeling obliged to participate. If teachers felt they fit the criteria they contacted me. Out of the participants that contacted me, I decided which best suited the criteria for the research.
3.3.3 Participant Biographies

Tina has about 22 years of experience in teaching. She has worked in a school that has lots of involvement in physical education where students are very athletic. She has also worked in a school that has lower involvement in physical education, making student engagement and participation the focus of her class. Currently, she is working in a female single-gender high school, where, generally, she deals with eager students from an array of athletic abilities. Finally, she has a degree in kinesiology.

Mia has been teaching for several years in physical education. She taught physical education for two years at the elementary level and has taught physical education for three years at the high school level. Currently, Mia is teaching in a high school, grade 9-12, that has a population of students that are eager but have little home support. It is a co-educational school where the physical education classes mix males and females, except at the grade 10 level, if enough females enrol. This school also allows students to access the weight room before and after school to workout. Mia has a degree in english and history. She took the physical education qualification after being a certified teacher. Throughout her life, Mia has always been involved in playing and coaching sports.

Malcolm is in his sixth year of teaching physical education. He has worked in two different high schools, both with similar school communities. Generally, students come from a fairly high socioeconomic status and have the opportunity to participate in sports outside of school. School fees or physical education fees are usually not an issue for these students. At the current high school Malcolm is working at, parent involvement is high.
The co-educational school is grades 10-12, meaning physical education is an elective for all these students. The younger grades are usually split, male and female, while the older grades are mixed. This school offers a variety of physical education courses, including courses that focus on gameplay or fitness. Usually, the courses units are one week long, meaning they focus on a single sport or activity per week. Malcolm has always been extremely involved with sports. He was part of the athletic council when he was in high school. He studied and received a degree in kinesiology while playing on a varsity team.

3.4 Data Analysis

The process of data analysis in qualitative research includes preparing and organizing the data, coding the data which involves reducing it into themes, and, finally, representing the data in a discussion (Creswell, 2013). In this case, the data is transcribed, then grouped in common themes, and then further analyzed in a discussion.

The research approach that is used to analyze the data is a case study analysis and a representation approach. This approach consists of making detailed descriptions of each specific case (each interview). Patterns and correspondence between each case are identified. Similarities and differences between the cases are used to develop a naturalistic generalization (Creswell, 2013). This generalization may be helpful in influencing and informing aspects of physical education. Information that is not addressed during the interviews is also mentioned in the data analysis. It sheds light on questions that are not answered and for what reasons.
3.5 Ethical Review Procedures

Several ethical review procedures are managed prior to conducting the interviews, during the interview process, and while analyzing and publishing the research. Firstly, participants are given a consent letter that clearly identifies the topic and purpose of the study, possible risks of participating in the study, and notifies the participants of an audio recorder that is used to transcribe the interview (see Appendix A for consent letter). The confidentiality of the participants is upheld, where no identifying terms are stated and pseudonyms are used. Participants are informed that at any time they may withdraw from the interview process and/or study. The data collection is also stored on my password protected computer.

3.6 Methodological Limitations and Strengths

There are several limitations and strengths to this methodology. One limitation is qualitative research makes it difficult to generalize. The data collected consists of only three teachers that are interviewed, limiting the sample size. For ethical issues, students and parents cannot be interviewed, only teachers. This can limit the data collected because it only reflects a single perspective. The research is focused in physical education classes in Toronto, limiting the perspective, further, to an urban perspective. I am also inexperienced in collecting qualitative research. Finally, it is important to note that bias may arise because qualitative research involves the interpretation of data, however this is limited as much as possible.

Although the qualitative research can include bias, there is the benefit of gaining a detailed description of the complex issue at hand in a way that quantitative research could not
achieve. The data is collected from teachers that must be experienced in physical education classes. This means that their expertise is brought forward, allowing for more depth. The teachers’ perspectives may act as a strength because they have such a deep understanding of the education system, especially within their teachable.

3.7 Conclusion

In short, this study takes a qualitative approach using two semi-structured interviews. This provides a detailed description of the topic being studied. The participants are selected through a purposeful sampling procedure which ensures the participants are volunteers. These volunteers must suit the criteria. The data is analyzed using a case study analysis and representation approach in order to review similarities and differences between the three interviews. Several ethical issues are considered throughout the research process. In the following chapter, chapter 4, the findings are reported.
Chapter Four: Research Findings

4.0 Introduction

It is important for students to be exposed to positive learning experiences in physical education. Physical education may be the only access some students have to reliable and valid information regarding healthy lifestyles and active living. This is important considering lifestyle related health issues. Barriers limit the positive learning experiences of students in physical education and, as suggested in earlier chapters, may result in decreased engagement, participation and selection of physical education, possibly affecting their future health. Chapter 2 outlines barriers and approaches to take to address them. Chapter 3 reviews the interview protocol that is implemented and the participant biographies. The following chapter reports on and analyzes data collected from the three interviews surrounding the use of student-directed learning to minimize or eliminate barriers in physical education.

I address the barriers that exist in physical education followed by the use of student-directed learning as an approach to minimize or eliminate these barriers. Barriers that are discussed in physical education are divided into three parts: barriers that create unsafe and uncomfortable learning environments within the classroom, barriers that influence physical education on a wider-scale, and barriers that are noted in the literature but not mentioned in the interviews. My research focuses on applying teaching strategies that can influence barriers that exist within a classroom. Following the report on barriers, student-directed learning is also divided in three parts: use and extent of student-directed learning among the three teachers
interviewed, benefits of student-directed learning, and challenges and considerations for implementing student-directed learning.

4.1 Barriers in Physical Education

Students experience many barriers that prevent or deter them from participating and/or continuing in physical education. A barrier encompasses any and all factors that act as obstacles or added challenges that affect student engagement, active participation, or selection of physical education. I discuss and address several barriers identified in physical education. Firstly, I identify barriers within a classroom leading to an unsafe and uncomfortable learning environment. These barriers can be addressed by teachers that are responsible for that classroom. Secondly, I identify barriers that have a wide-scale effect, primarily influencing the availability of physical education. Finally, I identify barriers that are noted in the literature but not addressed during the interviews, suggesting a gap in teacher education.

4.1.1 Barriers Related to Unsafe and Uncomfortable Learning Environments

When thinking about these barriers we must ask ourselves, what leads to an unsafe and uncomfortable learning environment? It is important that teachers thoughtfully and critically reflect on barriers that can create negative classroom climates for their students. In doing so, teachers can plan accordingly to manage and minimize these barriers and ultimately enhance student learning. In this section, I report on the barriers related to unsafe and uncomfortable learning environments. I discuss issues surrounding gender, ability and skill acquisition, method of evaluation, interest and
variety, injuries, and the need for further reflection. I also discuss the significance of each barrier and report on aspects of the literature that are not addressed by the teachers interviewed.

4.1.1.1 Gender

Gender can create barriers to physical education. “The Centers for Disease Control and Prevention (CDC, 2012) note that a staggering 60 percent of females do not meet the current recommendations for PA” (Foster & Appleby, 2015). Gender related barriers include gender-specific stereotypes that manifest within the physical education classroom and lead to an unsafe or uncomfortable learning environment. There are several gender-related barriers that are identified below. These barriers can deter students from fully participating and, ultimately, cause students to opt out of physical education. Based on the literature these barriers are expected to be prevalent.

Females can be exposed to unsafe and uncomfortable learning environments in physical education classes.

In one study, girls expressed that they would do almost anything to avoid being embarrassed in physical education. This required them to conform to social norms surrounding gender while trying to balance participation for grades. Furthermore, these girls stated that male dominance, competitiveness, and aggressive nature created obstacles to their engagement in physical education (Fisette, 2013).
Mia states, “… a lot of girls still don’t feel like they can compete or be at the same level as the boys and don’t want to be embarrassed… the majority of females just do what they need to do to get by.” Furthermore, Malcolm states, “it’s tough for the boys to make them take it easy with some of the more physically aggressive sports, making it difficult for them [females and males] to coexist.” It is clear that in classes that focus on competition, gender-related stereotypes may impact female students preventing them from fully engaging in physical education.

Interestingly, females who do excel in physical education refuse to be segregated from the males and use the competitive environment as an opportunity to prove themselves (Fisette, 2013). Malcolm states, “…some of the girls get a little upset when I separate the boys and girls. They say, what is this, we can play with the boys too. That’s when I mix it up.” For females that excel in athletics, separating or lessening the competitive environment can be discouraging and create barriers to physical education. In any case, it is clear based on enrolment that females face gender-related barriers. Mia states, “I have a class right now that has one girl in a grade 11-12 mixed and then my other class of the 11-12 mixed has four girls out of twenty-six.” In another study that explored gender-related stereotypes in a physical education class, it was interesting to note that even girls that felt they were ‘athletic and competitive’ seemed to doubt their abilities when is came to more ‘masculine’ sports (Constantinou, Manson & Silverman, 2009). Males also face gender-related stereotypes.
…boys who are good in sports are often afforded the privilege of being popular among their peers, thereby enhancing such elements as self-esteem, self-image, and masculine identity due to the creation of dominant and subordinate groups. Boys who are less athletically skilled are often ridiculed, which can negatively impact their self-perception (Swain 2000, Wienke 1998) (Murray, 2003).

Interestingly enough, the teachers interviewed did not address gender-related barriers in regards to males, suggesting a possible gap in teacher education in this aspect.

4.1.1.2 Ability and Skill Acquisition

Barriers related to personal ability and the focus on skill acquisition may create an unsafe and uncomfortable learning environment. In classes that focus on traditional sports, the athletically gifted students are usually favoured while students who do not like competitive environments or who do not possess talents for skill mastery are often neglected (Ballard & Chase, 2004). Furthermore, according to Mulvihill, Rivers, & Aggleton (2000), students were aware of their peers that had poorer abilities in physical education. These less able team members were picked on for letting their team down, having detrimental effects. Similarly, Malcolm explains the concern of students saying, “…I’m not athletic… I don’t want to be graded on how well I can perform a skill.” It is clear that
physical education that challenges students beyond their capabilities creates anxiety, sets them up for failure among their peers, and discourages them from participating, creating barriers to physical education. When asked why students opt out of physical education once it is no longer mandatory, Mia replies saying, “They don’t feel comfortable about their own physical abilities in the gym.” When discussing her colleagues cross-it-focused class, Mia states, “…by opening her class up and transforming it into a cross-fit-focused or fitness-focused class as opposed to a skill-focused class, a lot of kids wanted to enrol.” This further illustrates how lack of ability and a class that focuses on skill acquisition can create barriers that prevent students from fully immersing in physical education.

The level of difficulty related to fitness may also discourage students from participating in physical education. Fitness may require students to push their bodies to the limits, usually in an unpleasant way. Jacobson, Laws, & Potter (2012), found that overweight or obese student reported barriers to physical education for activities like running or sprinting or doing other tiring and physically unpleasant activities. It appears students that are less able or less fit tend to experience more discomfort during fitness, further discouraging them from participating. Similarly, when asked why students opt out of physical education, Malcolm replies saying, “Some kids don’t like the fitness aspect… they feel like they are going to barf after [the beep test].” This illustrates, further, how the ability of the students and the level of difficulty can create a barrier.
It may be useful for schools to offer different physical education courses; some geared towards athletic and physically competent students and others geared towards less athletic and physically competent students. When asked if the curriculum should remove the skill portion of physical education Mia replies, “… some kids in my class don’t excel in anything else and excel in physical education. I feel like those kids would be lost if we took that part [skill portion] out. I can also see how some people would benefit from taking that [skill portion] out.” This suggests, the need for a variety of physical education courses that differ between skill-focused classes with a high level of difficulty and self-improvement focused classes with a low level of difficulty.

Several barriers related to a lack of ability are identified in the literature but not addressed in the interviews, including weight status or obesity and students with disabilities. In a study that interviewed teachers regarding inclusive physical education classrooms, “several teachers felt inadequately prepared or lacked support and resources to effectively teach students with more severe disabilities” (Hodge, Ammah, Casebolt, Lamaster & O’Sullivan, 2004). It seems several teachers struggle with understanding how to incorporate students with physical disabilities, highlighting another possible gap in teacher education.

Another study found that several barriers stem from being overweight or obese. These include tiring and unpleasant activities, environments that are too competitive, a poor assessment strategy, dressing procedures, being dominated by skilled peers, and being ridiculed from peers (Jacobson, Laws & Potter, 2012). In
both cases, it is clear there are barriers that exist but seem to be neglected by the teachers interviewed.

4.1.1.3 Method of Evaluation

The method of evaluation may act as another barrier to students in a physical education class. Ineffective and unfair evaluations may be frustrating, and decrease motivation and participation. This may affect the classroom environment creating an unsafe and uncomfortable space for learning.

Some teachers grade based on the mastery of a skill determined by a standard. This form of evaluation can discourage participation among students. An emphasis on mastery, based on a standard, tends to demotivate low-performing students because they don’t believe they can reach the criteria. High-performing students may also lose motivation because if they can already reach the criteria they may feel they do not need to put in more effort (Melograno, 2007).

Mia discusses her concerns regarding the standard-based assessments, discussing how it can be inequitable, saying, “They’re trying to move away from somebody feeling bad about themselves by not being able to meet these standards; and really whose standards are they and where are they from and how accurate are they?” When asked why students opt out of physical education, Malcolm replies from a student’s perspective saying, “I [student] don’t want to get graded on how well I
can perform a skill.” It is important the physical education community is aware of methods of evaluations that may be harmful and inequitable.

Mia discusses her methods of evaluation that seem to be less harmful than the methods of evaluation mentioned above. “It becomes this goal setting for improvement… I think it is just student focused.” She evaluates students based on their goal setting abilities and their improvement throughout the course. This is possibly a more effective method of evaluation and may be an area to research further.

4.1.1.4 Interest and Variety

Students’ interests can vary greatly. Interesting and fun activities seem to increase student motivation and engagement. According to Rikard & Banville (2006), students complained about the lack of variety in the curriculum. Students stated they like physical education when it had a fun factor and when it included things they preferred and were interested in. This illustrates the need to offer a variety of sports and activities that students find interesting and fun to promote lifelong, active living. Tina states, “If you’re having fun you’re going to continue with that later on.” Tina attempts to enhance student learning by implementing fun exercises that students are more likely to continue with in their future. When asked why students opt out of physical education, Malcolm replies, “…some of the kids have told us they don’t like the swimming units… they [the students] also say they hate volleyball. They might skip a couple of times or when we are doing
drills and things they are just not into it.” This further highlights the importance of using a variety of activities that your students are excited about in order to improve participation and enhance learning. Malcolm talks about the benefits of switching sports or activities every week, “…it’s good because there is a variety of different sports you can play out there. Like if you didn’t like that sport, don’t worry, it’s just a week.” Ignoring students’ interests and planning lessons that lack variety may prevent students from having a positive physical education experience.

4.1.1.5 Injuries

Students that are injured severely are prevented from participating in tasks that may cause further injury. Besides creating safe activities, teachers do not have much control over student injuries, especially when the injury occurs outside the classroom. When asked where students commonly get injured, Malcolm states that, “it’s usually from outside [the classroom] because a lot of our kids are fortunate enough to play sports outside.” As a result, there is not much teachers can do for students that cannot participate due to a severe injury they acquire outside of school.

4.1.1.6 Need for Further Reflection

A common recurring theme in the interviews is that students did not bring their uniforms. Tina states, “…the barriers are themselves. They don’t bring their
uniforms, they don’t want to participate.” Malcolm also states something similar to Tina. I think this assessment seems slightly superficial. Although I am not fully aware of the situations as I was not present during these classes, I think there are underlying issues at play when students regularly forget their uniforms. Leaving the uniform at home may be an excuse for students to avoid facing issues in the classroom that they may feel uncomfortable with. Tina also states, “…some schools have kids that are more cooperative than others.” In both cases, I think there is a need to reflect further. We must always ask why? It is possible that teachers and the physical education community may still be unaware of barriers that students face. In instances like this critical reflection is necessary.

4.1.2 Wide-scale Barriers

There are several barriers mentioned in both the literature and the interviews that reflect a more wide-scale effect, suggesting the need for a wide-scale approach in managing them. My research focuses on how student-directed learning, a teaching strategy implemented in a classroom, can minimize or eliminate barriers. Unfortunately, this strategy cannot influence these wide-scale barriers. Regardless, these barriers are briefly discussed as they do affect student participation in physical education. More research is required to adequately deal with these wide-scale barriers.

According to Mia, within our education system, and society for that matter, physical education is often devalued by society. She states, “…I think it stems from society, there’s a lot of teachers in my school that have this idea that it's just gym.” When
asked, ‘do you think students understand the importance of physical education’, Mia continues saying, “I have found that although most people are aware of the benefits and importance of physical activity, its place in education is not valued.” Malcolm has similar beliefs. This suggests that society holds a disconnect between the importance of being physically active versus the importance of physical education. In one study, Morgan & Hansen (2008), found that at the elementary level “competition with other subjects was the main barrier preventing teachers from incorporating regular and sufficient PE into their weekly program.” It appears that even teachers place more value on other subjects. Similarly, Tina states, “They need the time for their other subjects… they feel they can’t fit physical education in anymore… they need to take all the other academic subjects and physical education is the one that gets left behind.” This highlights further, a lack of value in physical education as compared to other subjects. This is also exhibited in the lack of university and college level courses offered in the physical education stream. Students seem unable to enrol in physical education because they cannot use it as a credit to pursue post-secondary education.

It is clear that physical education is also devalued at the elementary level, similar to the high school level when Mia states, “…many elementary school teachers think that if their kids get in trouble for something they stop them from going to gym class… I don’t think they understand that it’s a curriculum expectation…” How can students value physical education in high school if they are taught that it is “optional” at the elementary level?
These barriers reflect a need for a large-scale change to our education system. Further research must be conducted in this area to determine possible approaches in dealing with these issues. The teachers interviewed make some suggestions as starting points for further research. Tina suggests, “…in any subject you need specialists, so in elementary physical education you should have specialists.” She also suggests, “…[we should] make physical education compulsory every year.” Mia describes what happens when a college or university credit course is offered in the physical education stream, “…it’s a college credit course, so a lot of kids come… because they want to be involved in this stuff and now it’s going towards college and university.” She further states, “A lot of kids see it as a bird course still…” suggesting the need to create physical education classes that are more challenging to students.

4.1.3 Missed Barriers

There are several barriers that are examined in the literature and not mentioned thoroughly in the interviews. These barriers include religion and culture, weight and obesity status, and body image. “This indicates that overweight/obese pupils are more likely to have PE dislikes/barriers” (Jacobson, Laws, & Potter, 2012). In regards to barriers due to body image, Foster & Appleby (2015), affirm that body image is one of the barriers that contributes to the declining physical activity levels. Dagkas (2007), a study that explored teachers’ experiences teaching to students with diverse cultures and religions, found that all the teachers identified situations where Muslim students, in particular, faced problems during physical education due to religious and cultural reasons.
Some of these barriers are not mentioned at all, while others are superficially mentioned. This calls attention to the gaps in teacher education surrounding physical education. Teachers seem to have a lack of knowledge surrounding these issues, suggesting a need for teachers to be educated in these aspects.

4.2 Student-directed Learning in Physical Education

Student-directed learning is an approach teachers can implement that may minimize and eliminate barriers in their classrooms. For the purpose of this research, student-directed learning involves collaboration between the students and the teacher to make decisions on the content that is covered and the method of learning that is implemented in the classroom. It is meant to allow students to decide what they want to learn while still fulfilling curriculum expectations. In this section of the chapter, I describe the use and extent to which teachers implement student-directed learning in their classrooms. I identify the benefits of using student-directed learning. Finally, I discuss the challenges and considerations teachers express when implementing this approach.

4.2.1 Use and Extent of Student-directed Learning in Physical Education

When asked how Tina used student-directed learning she replies, “…students helping students… student leadership, that sort of thing.” She also adds that, “…the students who are weaker are usually weaker in a variety of skills… so you can get
somebody who’s better to help them [through the semester].” This method excludes the collaboration portion between the teacher and student in student-directed learning. However, it places a limited amount of ownership on the students as they are responsible for teaching each other.

Malcolm, when asked how he uses student-directed learning, similarly to Tina, says, “give the kids leadership roles to lead the warm up…” He uses student-directed learning further when he states, “…when it comes to certain types of modifications to drills, I’ll ask the class. So for example, say we're playing ultimate frisbee and we’re doing a drill where they have to throw and catch… I’ll bring them in and say… what’s another way you can catch it.” He uses a similar process with the rules of games they play, the routine of the class, and the rules of the class. Malcolm also has students create new drills that he then implements. “Here’s a whiteboard, come up with a new drill. I’ll look at what drill I think is the best and then maybe you’ll explain it to the classroom and we’ll do it together…” Once again, he uses a similar process for creating game plays or strategies. Malcolm allows students to create their own circuits for fitness. “we’re doing some sort of circuit, you’re in charge of doing an upper body exercise, you’re doing a core exercise… and then we put it all together.” He also, when possible, allows students to pick between two sports for a week long unit, where himself and another teacher divide their classes up to teach one of the two options. Finally, Malcolm states, “at times, with the grade twelves especially, I say you need to all come up with warm up games and… everyday we’ll do a different warm up game that they created.” Malcolm allows students to make choices and decision during the class. He also creates an environment
where students can collaborate with each other and himself in order to make classroom decisions.

Mia holds the belief that, “they [her students] should have a say [in their learning].” In one example, she states, “…I literally showed my kids the [curriculum] expectation, asked what do you guys think that means, how can we meet this [expectation]?” In another example, Mia talks about an idea some of her students had about gameplay, saying, “gameplay [an expectation in the curriculum], what if we make a playbook… and then we’re going to show you if we can run a pattern in a real game using the play book.” She thought this was an excellent way to demonstrate this expectation. Mia makes sure she guides students that are lost and not meeting the expectation. “…sometimes their ideas are awesome and sometimes they’re not, but then we talk about it and… I help narrow things down.” While teaching a grade twelve English course Mia states, “…they should really have a say in how they’re learning and what they’re learning… we transformed the way we’re thinking and the way we’re teaching.” By using student-directed learning in an English class, she demonstrates cross-curricular implementation of this teaching strategy. In this learning environment students are collaborating with the teacher to make a large number of decisions about the content and method of learning.
4.2.2 Benefits of Student-directed Learning in Physical Education

There are several benefits to implementing student-directed learning. It increases engagement and motivation through collaboration and improves student attitudes, specifically towards physical education (Rikard & Banville, 2006). Furthermore, students that manage their own learning become more invested and take ownership of their learning and success (Saltman, 2012). Students also agree that they should have a voice in decisions regarding curriculum, specifically making decisions about the activities implemented (Couturier, Chepko, & Coughlin, 2005). Expression of student voice is a large component of student-directed learning and can possibly minimize and eliminate barriers. Finally, student-directed learning may nourish creativity among students.

Student-directed learning can increase student engagement, ownership and autonomy, creativity, investment in learning, and success.

In one study, students made decisions about the process and assessment of their writing project. These students displayed a sense of responsibility over their work and interest in their learning. The process became a more meaningful, creative, and engaging learning experience (Fletcher & Shaw, 2012).

Malcolm references the time he allowed students to create their own game to share and play with the class. He states, “...the kids were like that game was awesome, it was amazing, I would want to play that game over another game that Malcolm would have given us.” This illustrates an increase in student engagement and interest in learning among students when given autonomy over their learning through the use of student-directed approaches. When the learner has a high level of autonomy in learning there is
improvement in achievement (Fletcher & Shaw, 2012). Similarly, Mia speaks to the benefits of student-directed learning, stating, “…[students] are more inclined to want to do well when they’re invested in their learning.” This highlights an increase in student motivation and success when students are in control of their own learning. When explaining how students benefit from peer teaching, Tina’s statement illustrates how student investment can lead to improved success. She states, “…they really learn the skills better by teaching somebody else.” Malcolm explains that when using this approach students can, “flourish and show their creativity and do their type of skills.” This suggests that students improve their creativity skills when making decisions about their class.

Student-directed learning moves the focus to student learning rather than the need to rush through curriculum. Mia states, “if you get less sports done the first time… I think that’s better than rushing to get seven sports done and then having students say ‘I don’t even like this’.” She continues by saying, “…kids are being hands on in their approach to learning as opposed to just being hands on in the activity they are doing.” This outlines her belief in a student-focused classroom where students decide what and how they want to learn.

With the proper implementation, student-directed learning can reflect students’ interests, preferences and concerns. Rikard & Banville (2006), allowed students to express their concerns and preferences with their experiences in physical education. Student-directed learning can create a platform for students to express these concerns and preferences. Malcolm states, “I get some feedback on how to cater it to them… and they
get a little bit more happy.” Malcolm, similar to Mia, uses student voice from previous activities and lessons to improve his future activities and lessons by catering to the students’ needs and preferences. The process of incorporating student voice into the classroom is a large component of student-directed learning and can achieve similar benefits.

Student-directed learning creates a safe and comfortable space for students’ voices to be heard. Students agree that they should have a voice in decisions regarding curriculum, specifically making decisions about the activities implemented (Couturier, Chepko, & Coughlin, 2005). Expression of student voice is a large component of student-directed learning. According to Rikard & Banville (2006), some students voiced their opinions stating too much skill was required and not enough fun was included in the activities. This illustrates the possibility of using student-directed learning as a platform to identify barriers that students may be facing in a public or private manner. When asked ‘do you think it helps minimize some of the barriers you mentioned,’ Mia replied, “Yeah, I do… a lot of people who would otherwise be afraid to take physical education for certain reasons might be a little more comfortable in voicing their concerns and not just in voicing their concerns but coming up with strategies to overcome some of the issues that people might have.” This illustrates the possible effectiveness of student-directed learning in allowing students to become part of the process of eliminating barriers they face. In regards to addressing specific barriers, Mia states, “This barrier [lack of ability] is managed well with self-direction. When students feel like they have a say, they can help design units and activities that best suit their skills or make them most comfortable.”
This example highlights the positive impact student-directed learning can have on barriers that students face in physical education. Using student-directed learning to impact other barriers may help improve students’ physical education experiences and instil lifelong healthy and active living.

It seems that student-directed learning can be implemented in classrooms beyond physical education. Mia shares her initial attempt at student-directed learning in an English class saying, “it started in the English classroom… I sat with the department head and transformed the classroom. I felt they [students] should have a say, they are the ones doing it, they are the ones getting marked for it.” The benefits of student-directed learning may be attainable for all subject areas. Mia is not alone in implementing student-directed learning in other curriculum areas. In one study, teachers implemented a student-directed-like approach for students completing a writing project (Fletcher & Shaw, 2012).

4.2.3 Implementation of Student-directed Learning in Physical Education

The three teachers interviewed, identify several areas of concern or challenges they face when effectively implementing student-directed learning. They also identify actions that must be taken to successfully implement student-directed learning.

Among the teachers, one concern is the amount of classroom time that is used to implement student-directed learning. It takes time for students to voice their opinions and make choices on what and how they want to learn. Covering the curriculum is already a challenge for many teachers. Using classroom time for student-directed learning makes this task even more difficult. Tina expresses her concern saying, “…it takes a long time…
and the government has all this stuff packed into a curriculum that they want you to get through and if you did student-directed learning all the time you’re not going to get through your curriculum.” This illustrates the clash between covering curriculum and incorporating student-directed learning to create learning environments that are more meaningful to the students. The other teachers also agree that the time required to implement student-directed learning can be a challenge. There are ways to manage this challenge and optimize your classroom time. Mia describes a scenario that optimizes her time, “I got some of my courses online…so I put a document up that had a bunch of different expectations… then as they were telling me stuff I was adding to it, taking notes and then I re-uploaded it, so they could see the expectation with the notes they added.”

Creating this discussion online is one way to maximize your classroom time. More research needs to be conducted to further explore ways to mitigate this challenge.

Another concern is the difficulty in balancing structure versus freedom. Sometimes students may require guidance and structure with initial ideas and direction of thinking in order to satisfy the curriculum expectations. This may cause tension between giving students the freedom to make decisions about their learning while still providing structure and guidance for students to adequately meet the expectations.

In one study, teachers agreed that it takes more effort to develop skills among the students necessary to make decisions that would normally be provided to them in a teacher-directed classroom. Students can also easily give up when faced with a challenge if a framework is not established when implementing student-directed learning (Saltman, 2012).
Similarly, Malcolm discusses the need for structure at lower grades, saying, “I think grade tens need that structure. If I say come up with something, they [students] just say, ‘I don’t know what to do’.” Mia also agrees that there must be a balance between structure and guidance versus freedom of choice.

A third challenge in implementing student-directed learning is the fear of teachers losing control of the class or trying something new and failing. This fear prevents teachers from implementing student-directed learning. Malcolm and Mia spoke to this concern. Mia states, “a lot of people are really afraid of letting go… by giving them [the students] more decisions to make, you feel you don’t have it [control of the class] and I find it’s the complete opposite.” Although there is a fear of losing control of the class when allowing students so much say in what and how they learn, Mia affirms that this is not the case. Mia also states that teachers, like one of her co-workers, “worry about trying something different; what if it doesn’t work?” She notices this fear also prevents teachers from implementing student-directed learning.

A fourth concern in effectively implementing student-directed learning is creating platforms that allow all students’ voices to be heard. Since the class is making decisions as a whole, it is possible that some students may be left out due to fear of speaking out or being part of a minority in the class. Mia talks about using student-directed learning to mitigate gender barriers, saying, “unfortunately because we do not have classes divided by gender past grade 10, the small number of girls in upper level classes does not allow for much flexibility for the girls to work towards lessening some gender issues. However, the girls do share ideas and communicate more than they do in lower level courses where
they are less involved in their learning.” This example illustrates the possibility of losing student voices in a large group like the classroom. Similar findings are found in the literature. “Although the participants were given the opportunity to ‘choose’ their activity, they felt that they did not have a ‘voice’ in the activities that were offered” (Fisette, 2013). Besides individual voices being lost, student voice may also be influenced by socially constructed stereotypes. A study looking at female experience in physical education found that students avoided speaking up in cases where they did not want their gender or sexuality questioned. In these cases they were forced to conform (Fisette, 2013). Even with the option, students may feel pressured to conform or may be lost in a large group. This is an aspect of implementing student-directed learning that needs to be taken into consideration. Further research must be conducted to determine methods that mitigate these concerns.

A lack of support from administration and the department is the final concern of implementing student-directed learning that Mia speaks to. When asked, ‘what challenges do you face when implementing student-directed learning’, Mia answers, “staff who are so traditional, and so set in their ways…” She suggests that administration and departments that are very traditional in their teaching methods may make it difficult to implement different teaching approaches because they fear or refuse change. It is possible that administration and departments may even stop you from implementing student-directed learning.
4.3 Conclusion

Several barriers are identified and examined in physical education by the three teachers interviewed. These barriers seem to cause a decrease in motivation, engagement, participation, and selection of physical education. Depending on the extent of the barriers, students may face a varying degree of negative learning experiences in physical education, possibly impacting their future health. Teachers may influence the effects of barriers that manifest in their classrooms creating unsafe and uncomfortable learning experiences, such as gender, ability and skill acquisition, method of evaluation, interest and variety, injuries, and barriers that require further reflection. In these cases, teachers may employ teaching methods that manage these barriers. Most barriers discussed are also noted in the literature. Wide-scale barriers, such as the devaluing of physical education and the lack of college and university credit courses offered, require a large-scale approach, beyond a single teacher’s control. Finally, barriers noted in the literature and not in the data suggest gaps between research and practice. These barriers, such as religion and culture, body image, and overweight and obesity status require further research to demonstrate the impact they have on students. These barriers also need to be explicitly addressed in teacher education.

Student-directed learning is identified as a teacher approach that can effectively minimize or eliminate barriers, creating a more inclusive and positive learning environment in physical education. Furthermore, student-directed learning benefits students in many more ways, like creating ownership of learning and increasing creativity. Amongst the benefits, there are also some challenges that teachers must be aware of in order to effectively implement this approach.
Generally, these challenges can be mitigated and students can experience the full benefits of this approach.

In the next chapter, I identify the implications of these findings for myself as a teacher and researcher and for the educational community. I describe how the findings influence my teaching philosophy. I identify areas of education that must be addressed, like improving teacher education surrounding specific barriers in physical education. I also make recommendations for schools, boards, and the Ontario Ministry of Education based on these findings. Finally, I suggest areas based on my findings that may benefit from being researched further.
Chapter Five: Implications

5.0 Introduction

In this chapter, I provide an overview of the findings from the previous chapter and discuss the implications of this research. This includes the implications for both the educational community, as well as, me as a researcher and teacher. I state my recommendations for teachers, schools, boards, and the Ontario Ministry of Education based on the research. I suggest areas that require further research. These are suggestions for other researchers to explore as they are mentioned in my research but are not focused on. Finally, in a concluding paragraph, I discuss the significance of the research.

5.1 Overview of Findings

In the previous chapter, several barriers in physical education are identified. It is clear these barriers influence the experiences of the students in the classes. Some of these barriers manifest within the classroom leading to an unsafe and uncomfortable learning environment. Teachers can work to manage these barriers to create more positive physical education experiences. These barriers include gender, ability and skill acquisition, method of evaluation, amount of fun in the class, and injury. Other barriers impact physical education on a wide-scale, making it difficult for individual teachers to manage. These include a lack of time for students to elect physical education when pursuing post-secondary education, the lack of value society
places on physical education, and the poor implementation of physical education at the elementary level. It is also clear that some barriers are not addressed or are only scarcely addressed. These include religion and culture, weight or obesity status, and body image.

As a tool to mitigate these barriers and improve student experience in physical education I explore student-directed learning. Student-directed learning is a strategy that allows students to make decisions about what and how they want to learn while still meeting curriculum expectations through guidance from the teacher. Many of the teachers agree that student-directed learning creates a platform for student voice to be heard, allowing for concerns of barriers to be expressed publicly or privately. They also suggest several other benefits including student-focused classrooms that improve student motivation, increases creativity, reflect the interests of the students, and increase student ownership of learning. Although there are ample benefits to using student-directed learning, there are also several challenges to manage when implementing this tool. Teachers find it difficult to balance the need for structure and teacher guidance while still providing students with the freedom to make their own decisions. Some teachers also fear giving students too much control over the classroom. Time and lack of support from the administration and department are also obstacles that teachers face.

5.2 Implications

5.2.1 Implications for Educational Community

The barriers that manifest in physical education can impact students’ perspectives of physical activity and lead to an unhealthy lifestyle in adulthood. Some barriers in the
literature are not mentioned by teachers during the interviews, suggesting a potential lack of awareness or consideration. Some barriers exist at the curriculum level. Many students do not have time in their schedules to take physical education classes that are not considered credits for post-secondary education. This creates another concern for the physical education community. Students that want to take physical education are prevented from doing so because there is a lack of university and college credit courses in this stream. Physical education also appears to have less value in society than some other subjects in high school. Finally, the poor implementation of physical education at the elementary level seems to influence the attitudes of students at the high school level, further devaluing the subject area. These are important areas for the educational community to note in order to implement change, provide a positive physical education experience, and instil lifelong healthy and active knowledge and skills in students.

My research also suggests that student-directed learning is a great strategy to implement in physical education to target barriers that manifest in the classroom. It appears to minimize and eliminate many barriers that create a negative physical education experience by allowing the students to make more decisions about what and how to learn. This may empower students to make decisions about the classroom based on their needs, allowing them to minimize or eliminate the barriers they face. Student-directed learning also seems to create student ownership of learning, increasing their motivation and engagement. It is clear that teachers can gain several benefits from implementing this strategy into their classrooms. One teacher also suggests that this strategy is not limited to
physical education. Although, different classrooms may face different challenges, it is a strategy that can be applicable to several subject areas.

Teachers that do implement student-directed learning must be comfortable with giving up control of the classroom, have a supportive administration and department, and manage class time to allow students to make classroom decisions. These are important considerations when using student-directed learning.

5.2.2 Implications for the Researcher

As a teacher, I am more aware of barriers that may influence student engagement and motivation in my classroom. I am conscious that students face several barriers that I may not even be aware of. As a result, I am more reflective and understanding of situations and realize the importance of reacting to a situation with logic rather than emotion. Overall, I am a more caring and understanding teacher. As a researcher, I want to learn more about barriers specific to mathematics and biology classrooms, as these can differ from barriers in a physical education classroom.

In my classroom, I want to begin implementing student-directed learning. I want my students to decide what and how they want to learn. In doing so, I may increase student ownership of learning and, as a result, increase their motivation and engagement. I currently teach mathematics and biology. I’m finding it difficult to provide students with voices in these classroom settings. Generally, students are unaware of the meaning of math curriculum, making it challenging for them to understand what and how they
want to learn. For this reason, I want to learn more about student-directed learning in different subject areas, especially in mathematics and biology, to further understand the implementation and challenges in these subjects.

5.3 Recommendations

I have several recommendations for schools, teacher training, and the Ontario Ministry of Education. Firstly, I think it’s important for teachers to be aware of the barriers that exist in their classrooms. This can be addressed in teacher education programs and can include subject specific barriers. It is helpful to be aware of barriers that exist in general, but these can differ from subject to subject. I recommend that teacher education programs include classes that discuss possible barriers that exist in specific subject areas and provide teachers with strategies that help minimize or eliminate these barriers. I also recommend that teacher education programs promote student voice and ownership of learning, introducing teaching strategies that can achieve this, such as student-directed learning. This encourages teachers to move away from a teacher-focused classroom, where the curriculum must be covered, to a student-focused classroom where students are now in control of their learning. Finally, I recommend that teachers who are currently practicing in the field, complete professional development that explores these recommended changes to teacher education programs.

In regards to schools, I recommend that administrations and departments maintain an open-minded and supportive work environment. I recommend schools develop a platform for teachers to experiment with teaching strategies, such as student-directed learning, with a system
that allows these teachers to share their ideas with the rest of the faculty. Although this scenario is optimal, it may be challenging to implement because it is difficult to evaluate and measure open-minded and supportive administrations and departments. It is also challenging to mandate that schools participate in professional development, mentioned above, as teachers’ time is limited.

My third recommendation is to make changes to the curriculum. The curriculum clashes with student-directed learning because teachers can often only allow students to make decisions that fulfill the curriculum given limited time and packed curricula. A less content-heavy curriculum may provide students with more freedom to make decisions about what and how they want to learn. The physical education curriculum must also offer more courses that can be used as credits for post-secondary education. Finally, I recommend that the Ontario Ministry of Education produces a document regarding the importance, benefits, strategies, and challenges of creating a student-focused classroom, that includes student-directed learning. This may provide teachers with the necessary information and tools to create student-focused classrooms.

5.4 Areas for Further Research

More research needs to be conducted in managing wide-scale barriers such as the lack of university and college credit courses offered in physical education, the lack of value society places on physical education, and the poor implementation of physical education at the elementary level. These barriers are not the focus of this study but still have a large influence on
the experience and availability of physical education for students. More research must also be conducted to identify barriers in a classroom that teachers are generally unaware of.

As there appears to be several benefits to implementing student-directed learning, more research needs to be conducted on specific ways student-directed learning can be used, how to maximize classroom time when implementing it, and how to guide students in the right direction while still allowing them to make decisions.

Finally, more research must be conducted in how to implement this technique in different subjects. The benefits of student-directed learning can be achieved in all subjects but this teaching strategy may take different forms. I can only imagine how to implement this strategy into a mathematics class and manage the possible challenges I may encounter.

5.5 Concluding Comments

This research focuses on mitigating barriers to physical education that manifest in the classroom. These include gender, ability and skill acquisition, method of evaluation, amount of fun in the class, and injury. Student-directed learning appears to be an effective teaching tool to help manage these barriers. It allows students to make decisions about what and how they want to learn. This may empower them to publicly or privately address barriers they face. This is helpful for teachers who may not be aware of all the barriers in their classrooms. Besides addressing barriers in the classroom, student-directed learning also leads to several added benefits. It seems to create a student-focused classroom that reflects the interests of the students, improves student motivation and engagement, increases creativity, and increases student
ownership of learning. Challenges of implementing this teaching strategy include a lack of classroom time to discuss what and how students want to learn, the contrast between class structure to stay on task and student freedom to make decisions, teachers’ fear of losing control, and the lack of support from the administration and the department. Although not the focus of the research, there are wide-scale barriers that also affect the experience and availability of physical education. These include a lack of university and college credits offered in the physical education stream, a lack of value of physical education in society, and a poor implementation of physical education at the elementary level.

The implications of this research are ample. For myself as a teacher and researcher, I have learned a lot about student-directed learning and hope to incorporate it in my practice. I also want to learn more about implementing student-directed learning in other subjects as it relates to mathematics and biology. Within the educational community, teachers who implement student-directed learning can wreak the multiple benefits mentioned above. Although, teachers must also be aware of the challenges of implementing this teaching strategy, in order to mitigate them.

I recommend that teachers access professional development surrounding the importance of providing student voice in the classroom through the use of student-directed learning. Teacher education must discuss barriers in subject specific classrooms. I recommend that the Ontario Ministry of Education creates curriculum that is less content-heavy to allow students to make more decisions about what and how they want to learn, as well as, creates physical education curriculum that provides more university and college credits.
Finally, further research must be conducted in the implementation of student-directed learning in specific subject areas to gain insight into methods and challenges that may differ from one curriculum area to another. Exploring how to mitigate the challenges teachers face when implementing student-directed learning can also be insightful. Lastly, more research must be conducted in mitigating the influence of the wide-scale barriers that are not explicitly addressed by this research.
References


Appendix A: Letter of Consent for Interviews

Date:

Dear _______________________________,

My Name is Sarah Gillett and I am a student in the Master of Teaching program at the Ontario Institute for Studies in Education at the University of Toronto (OISE/UT). A component of this degree program involves conducting a small-scale qualitative research study. My research will focus on barriers that exist in physical education classrooms and ways to minimize these through student directed learning. I am interested in interviewing teachers who have at least two years of experience in teaching physical education classes, have implemented student directed activities and have implemented a variety of activities in their classrooms. I think that your knowledge and experience will provide insights into this topic. Your participation in this research will involve one 45-60 minute interview, which will be transcribed and audio-recorded. I would be grateful if you would allow me to interview you at a place and time convenient for you, outside of school time. The contents of this interview will be used for my research project, which will include a final paper, as well as informal presentations to my classmates and/or potentially at a research conference or publication. You will be assigned a pseudonym to maintain your anonymity and I will not use your name or any other content that might identify you in my written work, oral presentations, or publications. This information will remain confidential. This data will be stored on my password-protected computer and the only people who will have access to the research data will be my course instructor Arlo Kempf. You are free to change your mind about your participation at any time, and to withdraw even after you have consented to
participate. You may also choose to decline to answer any specific question. I will destroy the audio recording after the paper has been presented and/or published, which may take up to a maximum of five years after the data has been collected. There are no known risks or benefits to participation.

Please sign this consent form, if you agree to be interviewed. The second copy is for your records. I am very grateful for your participation.

Sincerely,

Sarah Gillett
(647)234-4076
gilletts44@gmail.com

Course Instructor’s Name: Arlo Kempf

Contact Info: arlo.kempf@utoronto.ca

Consent Form

I acknowledge that the topic of this interview has been explained to me and that any questions that I have asked have been answered to my satisfaction. I understand that I can withdraw from this research study at any time without penalty.

I have read the letter provided to me by Sarah Gillett and agree to participate in an interview for the purposes described. I agree to have the interview audio-recorded.
Signature: ______________________________________

Name: (printed) _______________________________________________

Date: ______________________________________
Appendix B Interview Protocol

a) Background of the Teacher

2. How long have you been teaching physical education?

3. Can you describe the school community you currently and previously worked at?

4. What is your background with physical education? (Uni, athletic?)

b) Teacher Practices

5. What barriers have you experienced during your classes; how do these barriers manifest in the classroom?

6. What methods or approaches have you taken to minimize these barriers? Did you find them effective? Why?

7. In what manner have you used student directed activities; did you notice this approach adding to or minimizing any barriers mentioned above? To what extent?

c) Beliefs and Values

8. In your opinion, what are the main reasons you believe students opt out of physical education classes once it is no longer mandatory?

9. What effects do the barriers you mentioned earlier have on the students?

10. In your opinion, does creating student directed activities benefit students? In what ways?

d) Influencing Factors

11. What challenges have you faced in minimizing or eliminating barriers in physical education classrooms?

12. What challenges have you faced in implementing the student directed activities you mentioned previously?

e) Next Steps
13. As a beginning teacher what suggestions or advice can you provide me with in minimizing barriers in physical education classes and successfully implementing student directed activities?