

UBC Social Ecological Economic Development Studies (SEEDS) Sustainability Program

Student Research Report

**Move UBC: Commuters versus Non-Commuters**

**Kyle Becker, Victor Dupont, Natalie Fincham**

**University of British Columbia**

**KIN 464**

**Themes: Health, Wellbeing**

**April 2, 2019**

*Disclaimer: "UBC SEEDS Sustainability Program provides students with the opportunity to share the findings of their studies, as well as their opinions, conclusions and recommendations with the UBC community. The reader should bear in mind that this is a student research project/report and is not an official document of UBC. Furthermore, readers should bear in mind that these reports may not reflect the current status of activities at UBC. We urge you to contact the research persons mentioned in a report or the SEEDS Sustainability Program representative about the current status of the subject matter of a project/report".*

## **Disclaimer**

“UBC SEEDS Sustainability Program provides students with the opportunity to share the findings of their studies, as well as their opinions, conclusions and recommendations with the UBC community. The reader should bear in mind that this is a student research project/report and is not an official document of UBC.

Furthermore, readers should bear in mind that these reports may not reflect the current status of activities at UBC. We urge you to contact the research persons mentioned in a report or the SEEDS Sustainability Program representative about the current status of the subject matter of a project/report”.

## **Executive Summary**

The Move UBC campaign at the University of British Columbia (UBC) is an annual initiative seeking to increase physical activity and reduce sedentary behaviours for university students, staff and the community overall (Move UBC, 2018). The purpose of our study is to identify barriers preventing students living on-campus and students commuting to campus from participating in UBC recreation programs. We will convey the information on the current perceived barriers identified through our online survey to Move UBC in order to address and increase participation rates. We used a Qualtrics online survey to collect our data due to its convenience and because it is UBC approved. Our survey consisted of 30 questions about the student’s faculty, participation in Move UBC events and barriers to participation. We recruited 7 participants from both groups: students living on-campus and students commuting to campus. The participants were recruited by posting an anonymous link on our personal social media accounts and posters displayed on campus. Qualtrics automatically compiles data, the quantitative data was analyzed based on the multiple-choice answer and the qualitative data was analyzed based on the similarity of the answers and organized into themes using content analysis.

The data from the survey showed that 57% of the participants commute to campus. The data revealed that 71% of the participants are aware of Move UBC but the majority of them do not participate for a variety of reasons. These reasons range from a lack of time with other commitments including school work to participants not being truly educated on what Move UBC has to offer. These findings suggest that even though the majority of students are aware of Move UBC, there are a number of barriers that are restricting participation levels.

Identifying these barriers allows us to come up with some recommendations that we feel would help increase student participation rates. With the data from the survey, it would be beneficial for Move UBC to consider the community and their current situation whether they live on campus or have to commute, and plan recreation programs or activities to cater to those participants commuting off campus. A recommendation for Move UBC would be to create a series of co-ed recreation programs and make separate groups within these co-ed programs. The answers to one of our open-ended questions suggests that participation would increase if there was more promotion of these events, not just promotion through paper but, if there was more of an education process behind the promotions. One last recommendation would be if Move UBC partnered with UBC parking and was able to generate a parking pass or parking code for members participating in Move UBC events.

## INTRODUCTION & LITERATURE REVIEW

The benefits of physical activity have been well documented due to the important impacts physical activity has on increasing overall well-being (Warburton, Nicol & Bredin, 2006; Move UBC, 2018). Sedentary behaviour is defined as activity that involves little physical movement (Move UBC, 2018). Sedentary behaviour has been identified as a risk factor for chronic illnesses, such as cardiovascular diseases and type II diabetes (Move UBC, 2018). Universities aim to decrease student's sedentary behaviour and increase their physical activity levels to promote and maintain optimal health. For example, the Move UBC campaign at the University of British Columbia is an annual initiative seeking to increase physical activity and reduce sedentary behaviours for university students, staff and the community overall (Move UBC, 2018). Universities have progressively tried to promote opportunities for physical activity in order to improve students' well-being (Brewton, 2017; Move UBC, 2018).

Despite the presence of recreational programs and facilities on campus as well as the promotion of beneficial effects of physical activity, university students are becoming less physically active (Spivey & Hritz, 2013; Move UBC, 2018; Sluss, 2019). Spivey and Hritz (2013) studied the patterns of university students in terms of their decisions to participate in recreational sport activities on-campus. The results of their study indicated that students who never participated or participated on occasion in recreational campus activities reported that they knew the benefits of participating. However, this was not associated with increased physical activity participation (Spivey & Hritz, 2013). This trend was also observed in the fall 2018 intramural sports tournament in Oregon State University where intramural female participation reached a five-year low mark and was decreasing every year (Sluss, 2019). A surprising trend as recreational programs were planned and organized to increase participation with a more equitable approach, promoting participation for all (Sluss, 2019).

Schneider, Stier, Kampf, Wilding, and Haines (2007) studied the perceived issues regarding campus recreation programs in North America by conducting surveys on directors of university recreational programs. According to their findings, 50% of the directors confirmed that marketing and promotional efforts for campus recreation was an issue. Moreover, 60% of directors agreed that "parking availability" was a major problem and affected campus recreation programs. A lack of parking availability was associated as an issue in attracting potential participants living off-campus (Schneider et al., 2007).

According to Horn, Nevill & Griffith (2006), 85% of all college students now live off campus (as cited by Kirk & Lewis, 2013). An interesting finding which could apply to the UBC campus as it was reported that of the 55,887 total students at the University for the year 2017-2018, only a small portion were living on the campus as residents (The University of British Columbia, 2018). As the number of commuter student increases, understanding commuter students' physical activity patterns is becoming increasingly imperative (Newbold, Mehta & Forbus, 2011).

Commuting students tend to spend less time on campus which prevents them from forming more relationships with peers and faculty, it may also prevent them from attending campus events (Newbold et al., 2011). The National Survey of Student Engagement (2011)

found that 59% of commuting students participated in co-curricular activities, compared with 75% of resident students (as cited by Kirk & Lewis, 2013). There are numerous issues that differentiate commuters and students living on-campus including motivation to attend university, their support groups, how they spend their time, their involvement in school, and their attitudes towards university (Newbold et al., 2011). Most notably commuter students are less likely to use recreational centers or attend sporting events on campus (Newbold et al., 2011). Additionally, commuter students are less likely to be involved in school-sponsored activities (Newbold et al., 2011). Tinto (1997) identified that student involvement on campus increases their likelihood of remaining in school (as cited by Kirk & Lewis, 2013). Sense of community is the most important factor gained from these groups by students. A sense of community was notably higher in students living on-campus compared to commuter students (Kirk & Lewis, 2013). Jacoby & Garland (2004) stated that the needs of student commuters have not been sufficiently understood or integrated into policies, programs and practices (as cited by Kirk & Lewis, 2013). The two barriers identified that affect commuting students' participation in campus activities are transportation and scheduling issues (Kirk & Lewis, 2013).

Most universities have a substantial proportion of commuters (Lightfoot, 2018). Commuter students are missing out on university experiences because they stay involved with their lives at home and miss out on massive opportunities at university (Lightfoot, 2018). More specifically, extensive commutes have been related negatively to health and well-being (University of Waterloo, 2014). Indeed, commuters have a lower life satisfaction, increased stress levels, poor mental and physical health, including hypertension, obesity, low-energy and illness-related work non-attendances (University of Waterloo, 2014). Commuters who had time for physical activity had higher life satisfaction because physical activity can alleviate stress (University of Waterloo, 2014). Therefore, the time spent commuting long hours can impact an individual's physical activity which can in turn affect their health and overall life satisfaction (University of Waterloo, 2014).

Interestingly, many constraints to physical participation also apply to students living on-campus or students living at walking distances from classes. Indeed, lack of time and not knowing about the activities offered were two of the most observed constraints by Young, Ross and Barcelona (2003) when observing 416 students who considered themselves as not involved in recreational activities. More importantly, they suggested that a possible reason for this lack of time constraint was the fact that university students may not place enough importance on physical activity to include it in their daily planning (Young, Ross & Barcelona, 2003). Several studies have aimed to understand the differences between students living on-campus and commuting students in terms of their involvement or participation in on-campus recreational activities (Alfano & Eduljee, 2013; Schneider, Stier, Kampf, Wilding, & Haines, 2007). Alfano and Eduljee (2013) investigated the differences in work, levels of campus involvement and academic performance between students living on-campus and commuting students. Authors observed that 66% of commuting students and 21% of students living on-campus did not participate in any university sponsored activities during the Fall 2011 semester. Another interesting finding was that almost 70% of students living on-campus and 50% of commuting students confirmed that they desire to participate in more university-sponsored activities. The study discussed the need for university recreational directors to plan activities that would fit schedules for both students living on-campus and commuter students (Alfano & Eduljee, 2013).

The purpose of our study is to identify barriers preventing students living on-campus and students commuting to campus from participating in UBC recreation programs. We will convey the information on the current perceived barriers identified through our online survey to Move UBC in order to address and increase participation rates. Moreover, the research from our study will assist the university's recreational programs, such as Move UBC, plan and promote programs that target students living on-campus and student commuters. The information found in this research project is significant because previous literature primarily focused on the population as a whole, not on both specific university communities.

## METHODS

### Background

Move UBC is a university-wide annual initiative to increase physical activity and reduce sedentary time (Move UBC, 2018). Move UBC's priority is to increase opportunities to be more physically active on campus, as sitting less and moving more are crucial to increase overall wellbeing of both individuals and the community (Move UBC, 2018). The community that we have chosen for our research study are UBC students living on-campus and UBC students commuting to campus. It is important to determine which group participates in UBC recreation programs, which programs are the most popular and the barriers preventing students from participating in order to improve physical activity and reduce sedentary behaviours among students at UBC. Alfano & Eduljee (2013) found that 70% of students living on-campus and 50% of commuting students confirmed that they desire to participate in more university-sponsored activities. Thus, emphasizing the importance for university recreational directors to plan activities that will fit student's schedules for both students living on-campus and commuter students (Alfano & Eduljee, 2013). The overarching questions that we aim to identify with our research are: What are the barriers preventing UBC commuter students from participating in UBC recreation programs and how do these barriers differ from UBC students living on-campus?, What changes would students like to see implemented to UBC recreation programs? What recommendations can be given to Move UBC to assist in addressing these barriers based on the findings from this study?

Move UBC identified the risks associated with sedentary behaviour, recommending how much activity we should be participating in, and the benefits of activity. Move UBC provides ways to include physical activity into student's lives. The strategies that Move UBC give for incorporating physical activity include: using technology as motivation and encouraging fitness knowledge, making activity social by joining intramural teams or getting friends together to participate in a UBC recreation program, breaking up prolonged sitting with quick exercise ideas and walking more during the day, exploring campus and utilizing facilities (Doug Mitchell Sports Center, Aquatic Center, etc.) or using other resources on campus (Bodyworks, Community Centers near campus) (Move UBC, 2018). However, there is no mention of the barriers faced by students commuting to campus and students living on-campus.

## **Description of Methods**

Participants will be directed to the online survey using an anonymous link promoted through our personal social media accounts or posters positioned on campus. We will recruit 7 students that live on-campus and 7 students that commute to campus. Participants will fill out our 30-question Qualtrics survey anonymously. The participants will be asked a variety of questions including: general questions and questions regarding their participation in UBC recreation programs. Once we have the results from both groups, we will analyze the data. The quantitative data will be compiled by Qualtrics based on which multiple choice answer the participant chose, then we will take this data and create frequency distribution tables and figures. The qualitative data will be analyzed using content analysis. The responses will be categorized into themes and presented using tables and figures.

## **Method Rationale**

An online survey was chosen as our data collection tool for several reasons. Online surveys have notable advantages compared to other formats (Evans & Mathur, 2005). Firstly, as we are surveying university students whose studies greatly depend on internet use, therefore we are assuming that our participants have access to the internet and are able to participate in our study. Online surveys are more convenient for participants because they are able to fill out the survey whenever best suits them (Evans & Mathur, 2005). The participants in our study will be anonymous, they will not need to provide names, the information needed will be general (commuter or living on-campus, year of education, male or female, etc.) and they will access the survey using an anonymous link. Online surveys can be less stressful for individuals to take part in because there are no face-to-face interviews, thus encouraging individuals who may be hesitant to be a part of an interview to participate (Wright, 2006). Our survey is online and anonymous, therefore encouraging participants to provide honest answers. Personal surveys or interviews can pose a weakness owing to interview bias and respondent time pressure (Evans & Mathur, 2005). Exaggerations in answers to our questions could have skewed the accuracy of our data immensely and provided redundant information. Therefore, in order to maximize the results of our study we have chosen to use an online survey to collect our data.

Another significant advantage of online surveys is the convenience of automated data collection (Wright, 2006). This form of data collection will reduce our time compiling the data (Wright, 2006). Ray and Tabor (2003) state that response rate is improved when surveys are shorter in duration, relevant and are interesting to the target participants (as cited by Evans & Mathur, 2005). Brown (2003) noted that it is not the number of questions that affects the response rate but the time and effort that are required to complete the survey (as cited by Evans & Mathur, 2005). Therefore, taking this information into account, our survey is short, relevant to our topic, and asks simple and straightforward questions. The online survey that we used in our study is Qualtrics (Refer to Appendix). The reason we chose to use Qualtrics is because it is UBC approved, allowed us to create a simple and straightforward survey, which also included the consent form that was easily viewable for the participant.

## **Recruitment**

Throughout the month of March, the members of our group promoted our online survey using their personal social media accounts. Weekly reminders using our personal Instagram, Facebook and Snapchat accounts were posted throughout the month. There was a link to our online survey, a brief message about the project and encouragement to participate. The message that will be included is “Hello friends! I am in KIN 464 (Health Promotion and Physical Activity) and researching the differences in UBC recreation program participation between UBC students living on-campus and UBC students commuting to campus. I would really appreciate your help with the research so please click the link below and fill out the short online survey. Thank you!”. Direct questions will not be asked on our social media accounts in order to maintain anonymity. The use of social media will increase the awareness and distribution of our survey, which will provide us with a greater pool of information to better aid Move UBC. Social media sites serve as distribution platforms, which circulate messages to individuals and the public (Braun, 2015). In addition to the promotion through the social media accounts, we will be distributing posters throughout campus. We will position posters in main buildings (Woodward, Irving K Barber Library, the Nest), near residents on-campus, near the bus loop and parkades in order to gather an equal distribution of participants. The poster will include a brief summary, the purpose and aim of the study, will have a simple design with a picture to capture interest, and tabs along the bottom with the link to our survey (Refer to Appendix).

## **Data Collection**

The data that we intend to collect through the use of our online survey will illustrate the difference in Move UBC Rec program participation between students living on-campus and students who commute to campus. The quantitative and qualitative differences between students living on-campus and students commuting to campus participation rates will be determined through our online survey (Refer to Appendix). The online survey will include broad questions such as “Do you live on-campus or do you have to commute to classes?” and more specific questions such as “What changes would you like to see made to UBC recreational opportunities so that you would participate?”. The information gathered from our survey will be provided to Move UBC to help increase student participation levels as well as feedback specific to where students are interested in seeing improvements or changes.

## **Data Analysis**

The survey we intend to use for our research study is composed of 30 questions. The first question in the survey is the consent form, providing information about the project and contact information for the participant if they have further questions about the project, and prompts the participant to consent to begin the study or to not consent and not participate in the study. The following three questions are very general and allow us to collect general demographic information about the participants including: gender, faculty, year of study. Question 5 is significantly important as it separates our participants into two groups: students living on-campus and student commuters. Question 6 is related to the previous question as it asks about the student’s method of transportation to campus. Questions 6 and 7 help differentiate participants based on their self-evaluation of their activity levels and overall health. Questions 8, 9 and 10

infer about the participant's time on campus, asking how late they usually stay on campus, what they do between classes, and what time are they usually least busy during the week. Question 11 directly asks if the participant if they have heard of Move UBC. Move UBC is a campaign at UBC that aims to increase physical activity and reduce sedentary behaviours among university students and this question will provide insight into the effectiveness of Move UBC's campaigns (Move UBC, 2018). Question 12 queries if the student participates in any recreation programs at UBC. The answer to this question and question 5 (whether the student lives on-campus or commutes to campus) will identify which group participates more in UBC recreation programs. Question 13 and 14 distinguishes how many programs and which specific programs students are participating in. This will provide important information about which programs are the most popular among students living on-campus and students commuting to campus. Question 15 is program specific and asks about the level of competition. Questions 16 and 17 identify possible barriers of participation, asking whether there is another sport or recreation program that prevents participation in Move UBC programs, and the latter asking if living on-campus would increase participation. Question 18, 19, 20 and 21 ask specific questions yes or no questions regarding gender or co-ed program preferences, promotion of programs affecting participation, timing of programs and manageability, and standard of facilities. Question 22, 23 and 24 inquire about possible barriers to participation including: friend's participation, parking price and availability, and location of programs on campus. Schneider et al., (2007) investigated problems in campus recreation programs and noticed that parking availability and pricing was a common barrier for student participation, therefore question 23 will investigate the impact of parking on student's participation in recreation programs. Questions 25, 26, 27 and 28 are open ended questions allowing participants to express their thoughts on the questions. These questions ask about involvements on-campus, encouragements to participate in rec programs, Move UBC events attended, and changes implemented to increase participation, respectively. Question 28 specifically will provide an opportunity for participants to provide feedback about improvements or changes they would like implemented to the UBC recreation programs in order to increase participation.

The participants will answer the questions to the online survey on Qualtrics and the data gathered will be analyzed using Qualtrics. The quantitative data gathered from the multiple-choice questions will be provided in frequency distribution tables and figures. The qualitative data will be compiled by Qualtrics and will be presented based on similarity and common themes of the responses. Descriptive data can be defined as data from our participants that we will use to organize, summarize and describe our findings into themes and variables of interest (Tokunaga, 2016). We will perform a content analysis on our qualitative data where we read through each response and organize them based on themes in order to distinguish the occurrence of each theme. This data will then be used to investigate potential solutions and provide recommendations to assist Move UBC in identifying barriers and recommendations for future implementation of programs and increasing student participation rates.

## **FINDINGS AND DISCUSSION**

The goal of our survey was to use the data we collected to investigate potential solutions and provide recommendations to assist Move UBC in identifying barriers and recommendations for future implementation of programs and increasing student participation rates. The data



collected from the survey regarding Move UBC and the differences in participation rates between student commuters and students living on-campus suggests that the majority of students are aware of Move UBC. Although, the majority of students are aware of Move UBC only a few have participated in a Move UBC event. This suggests there is a lack of education within the general public about Move UBC and what it is they offer. The gap in the education about Move UBC recreation programs is related to the registration process and whether or not these programs are individual or group programs. This is supported by our data collection where the majority of our participants say that the times of the programs offered are at an appropriate time, and by our open-ended questions where participants state that more education is needed on information such as registration and promotion of these events.

In the data we found that the idea of co-ed activities generated a lot of support. With all but one participant saying they would participate more in Move UBC events if they were co-ed. This idea is supported through an open-ended question we asked, speaking to what would get students to participate more in recreation activities and one of the common responses was that they would participate more if their friends or social circle participated in the activities as well. Ultimately making these events co-ed opens the door to more participants and addresses possible barriers such as gender identification and individuals that may be uncomfortable attending a gender set recreation activity. It also addresses a conflict barrier, making activities more open by eliminating a set time frame for genders. Whereas if there is a set timeframe for each gender, one may have a conflict during their designated time and adapting the idea of co-ed activities, would create more possibilities for participants to make the activity of their choice.

The research suggests that the majority of the participants rely on public transportation to get to campus. The data indicates that this is the most common barrier affecting commuters and their participation levels with Move UBC. We found that since the majority of our participants live off campus and rely on transit to commute, these participants seek other forms of activity that are more convenient for them or are simply too busy with school and other commitments to participate in any recreation activities on campus. Common forms of activity that participants participate in are working out at a gym closer to where they live, or in other recreation events with in their community. The results show that if these participants lived on campus, participation levels would increase. The participants who took the survey that live off campus said that they would participate more in recreation programs if they lived on campus.

## **Challenges and Limitations**

There were a few limitations and challenges that were present through the duration of our study. One of the challenges we faced surrounded the specificity of the online survey questions. In other words, we found it challenging aiming the survey questions to target the area of our research. Although there are several benefits of using an online survey, there are also notable disadvantages. The survey questions are very specific, as they inform us about activity level, time of programs, facility standards, parking availability and parking prices. These questions could limit the study results as participants might not have thought of these specific barriers affecting their participation, and potentially could pick them because they have been exposed to these options. The reason that we chose to include these specific questions in our survey, is to target common barriers that have been previously identified in the literature (Schneider et al., 2007; Newbold et al., 2011). Another challenge and limitation we faced in our study was

reporting bias. We attempted to reduce reporting bias by implementing an online survey instead of an interview. An online survey allows participants to answer the questions anonymously, and on their own time which encourages accurate and honest answers (Evans & Mathur, 2005). However, the anticipated uncertainty with participants and how they may not answer the questions truthfully, either to portray themselves as healthier or more active than in reality was apparent. (Gordon & Van Durme, 2013; Dwan et al., 2013). A flaw we noticed with online surveys is that they do not provide an opportunity to ask probing questions that would allow us as the surveyors, to personalize an individual's preferences. Furthermore, another challenge and limitation we noticed in our study is that our data collection will be online, and we are assuming that our target population will have access to the internet. We assumed that people that do not have access to the internet will not be able to take part in our study. However, since the majority of participants are students at UBC, who offers free campus-wide Wi-Fi, and the convenience of online surveys should limit this issue. This issue was found to be one of our greatest challenges with our study, we found it challenging recruiting participants to fill our targeted areas. In the end we found participants to participate, but it was challenging. Potential candidates were either unwilling or lacked the time to participate in our study. Evans and Mathur (2005) argued that one of the many benefits of conducting online surveys is that they minimize the time it takes to administer the survey and gather the data. We thought conducting interviews was not a suitable way to collect data for our research and agreed with Evans and Mathur and decided that using an online survey addressed these challenges and limitations in a way that better suited our research purpose.

If we were to re-run this study, we would address the challenges and limitations we faced during this study. We would address the challenge of our survey specificity by becoming more familiar with Qualtrics, with this being our first experience with Qualtrics we ran into issues being able to collectively create our survey and generate probing questions. Re-running our study and survey with Qualtrics would allow us to create a more specific questions and target our questions according to our goal, as we are more familiar with the information, and our abilities to use Qualtrics.

In future studies we would address the issue of reporting bias, we would address this issue by asking more probing questions and making questions more specific to the variety of responses we received. After analyzing the responses, we had with our current survey we found that there were questions that participants were unable to answer accurately and just answered based on what they thought based on their own abilities and experiences in other recreational situations. Most participants had not actually taken part in any of Move UBC's activities, and the majority of our questions were tailored around gathering information specifically regarding Move UBC's activities, not on individuals' and their personal experiences in similar situations.

Lastly, if we were to re-run this study, we would do a better job promoting our survey, in this study we relied on social media and posters posted by the main residences on campus as our main source of advertisement. This generated some interest and responses, but not necessarily enough information to accurately assess the UBC population as a whole. In a re-run of this study we would like to promote our survey in a variety of different situations, we would like to post information about our survey in the main areas of campus like we did in this version, but we would also utilize university wide tools such as Canvas to promote our survey. In using canvas,

we would send the link to our survey through the discussion board in each of our classes in hopes of generating more responses from a larger population.

## **RECOMMENDATIONS**

After completing our research on Move UBC and the differences between commuters and non-commuters we were able to come up with some recommendations to help Move UBC increase participation rates. With the results from the survey, it seems it would be beneficial for Move UBC to consider the community, whether they live on-campus or have to commute, and plan rec programs or activities to cater to those participants commuting off campus. With 57% of our research participants commuting from off campus, our research supports and suggests that more research surrounding the interests of commuters could benefit and increase Move UBC participation levels.

Analyzing the results from the participants that took part in the survey, it was determined that 86% of participants would participate more in recreation programs at UBC if they were co-ed. A recommendation for Move UBC would be to create a series of co-ed recreation programs and make separate groups within these co-ed programs. One for those who are looking for more of a social gathering, this group would participate in informal activities and base them on playing for pleasure. The second category or group would be more on the competitive side, where the outcomes of games will be tracked and an individual or team champion will be crowned depending on the specific sport or event.

The results of our survey suggest that members are aware of Move UBC with 71% of participants saying they have heard about Move UBC. Of this 71% only 42% of participants take part in Move UBC programs. The results of one of the open-ended questions suggests that participation would increase if there was more promotion of these events, not just promotion through paper but, if there was more of an education process behind the promotions. The education we recommend would be based on how to join, are participants able to join individually or do they need to register an entire team to participate. Another area we recommend education on is educating potential participants on what events are offered. What sports, what times, are there leagues, or is it more of a drop-in type environment are all potential questions surrounding participation in the programs that Move UBC offers.

One last recommendation would be if Move UBC partnered with UBC parking and was able to generate a parking pass or parking code for members participating in Move UBC events. The results of our survey suggested that if there was a potential parking credit or agreement in place surrounding discounted parking that there would be a potential increase in participation by 85%. This would benefit the members commuting to these events and save them money by this partnership either creating a discount or giving them free parking. It would also benefit participants by providing them more opportunity to increase physical activity levels.

## References

- Alfano, H., & Eduljee, N. (2013). Differences in work, levels of involvement, and academic performance between residential and commuter students. *College Student Journal*, 47(2), 334-342.
- Braun, J. (2015). Social media and distribution studies. *Social Media + Society*, 1(1), 205630511558048. doi:10.1177/2056305115580483
- Brewton, I. (2017). Perceived constraints by college students to participation in campus recreational sports programs at a southeastern historically black college and university (HBCU)
- Evans, J. R., & Mathur, A. (2005). The value of online surveys. *Internet Research*, 15(2), 195-219. doi:10.1108/10662240510590360
- Kirk, C. M., & Lewis, R. K. (2013). Sense of community on an urban, commuter campus. *International Journal of Adolescence and Youth*, 20(1). 48-60.  
doi:10.1080/02673843.2013.76833
- Lightfoot, L. (2018). Commuter students: locked out, left out and growing in number. *The Guardian*. Retrieved from  
<https://www.theguardian.com/education/2018/jan/30/commuter-students-debtuniversities-live-home>
- MoveUBC. (2018). The Sitting Epidemic. Retrieved January 28, 2019, from  
<https://move.ubc.ca/the-sitting-epidemic/>
- Newbold, J. J., Mehta, S. S., Forbus, P. (2011). Commuter students: Involvement and Identification with an institution of higher education. *Academy of Educational Leadership Journal*, 15(2), 141-153.

Schneider, R. C., Stier Jr, W. F., Kampf, S., Wilding, G., & Haines, S. (2007). Perceived problems in campus recreation programs in North America. *Recreational Sports Journal*, 31(1), 51-60.

Tokunaga, H. T. (2016). *Fundamental statistics for the social and behavioral sciences*. Thousand Oaks, California: Sage.

University of Waterloo. (2014). Waterloo research: Commuting linked to lower life Satisfaction. Waterloo Centre for Automotive Research. Retrieved from <https://uwaterloo.ca/centre-automotive-research/news/waterloo-research-commuting-linked-lower-life-satisfaction>

Sluss, L. (2019, January 14). Intramural female participation hits five-year low. *The Daily Barometer*. Retrieved from [http://www.orangemedianetwork.com/daily\\_barometer/intramural-female-participationhits-five-year-low/article\\_6a77c338-1766-11e9-b8b1-1786f398129b.html](http://www.orangemedianetwork.com/daily_barometer/intramural-female-participationhits-five-year-low/article_6a77c338-1766-11e9-b8b1-1786f398129b.html)

Spivey, L. M., & Hritz, N. M. (2013). A longitudinal study of recreational sport participation and constraints. *Recreational sports journal*, 37(1), 14-28.

Warburton, D. E. R., Nicol, C. W., & Bredin, S. S. D. (2006). Health benefits of physical activity: The evidence. *CMAJ: Canadian Medical Association Journal = Journal De l'Association Medicale Canadienne*, 174(6), 801-809. doi:10.1503/cmaj.051351

The University of British Columbia. (2018). UBC Overview & Facts. Retrieved March 15, 2019, from <https://www.ubc.ca/about/facts.html>

Wright, K. B. (2005). Researching Internet-based populations: Advantages and disadvantages of online survey research, online questionnaire authoring software packages, and web survey services. *Journal of computer-mediated communication*, 10(3), JCMC1034.

Young, S. J., Ross, C. M., & Barcelona, R. J. (2003). Perceived constraints by college students to participation in campus recreational sports programs. *Recreational Sports Journal*, 27(2), 47-62. doi:10.1123/rsj.27.2.47

## Appendix

### Raw Data

- Descriptive Statistics**

Q2: Which gender do you identify with?		
	Female	Male
Valid	8	6

Q3: What faculty are you in?					
	Arts	Commerce	Forestry	Kinesiology	Land and Food Systems
Valid	1	1	1	6	1

Q4: What year of study are you in?			
	First year	Upper undergraduate	Graduate
Valid	3	11	0

Q5: Do you live on-campus or commute to campus?		
	“I commute to campus”	“I live on-campus”
Valid	10	4

Q7: How active are you?			
	High (at least 150 minutes of moderate to vigorous intensity per week)	Low (mostly sedentary)	Moderate
Valid	6	2	6

**Q6: What is your method of transportation to campus?**

	Bus	Car	Car & bus	Sky-train	Public Transit	Walking	bus	walking	walking and biking
Valid	4	2	1	1	1	2	1	1	1

**Q8: How would you rate your health?**

	High (highly active, limit sedentary time, healthy diet)	Low (sedentary, unhealthy diet)	Moderate
Valid	4	2	8

**Q9: How late do you usually stay on campus?**

	3:30pm	4pm	5pm	6pm	7pm	8pm	9pm	1pm	Not very late	Not late	All day
Valid	1	2	5	1	2	1	1	1			

**Q10: What do you do in between classes?**

	Study	Eat	Socialize	Exercise	Commute	Leisure
Valid	12	5	4	2		1
						2

**Q12: Have you heard of MoveUBC?**

	No	Yes
Valid	5	9

**Q28: How many MoveUBC events have you attended?**

	0	1	2
Valid	10	2	2

**Q13: Do you participate in any recreation programs at UBC?**

	No	Yes
Valid	9	5

**Q14: How many programs do you participate in?**

	0	1	2	3
Valid	10	2	2	0



---

**Q22: Are the facilities up to standard?**

---

	No	Yes
Valid	3	11

---

**Q23: Do you have friends that participate in recreation programs?**

---

	No	Yes
Valid	5	8
Missing	2	2

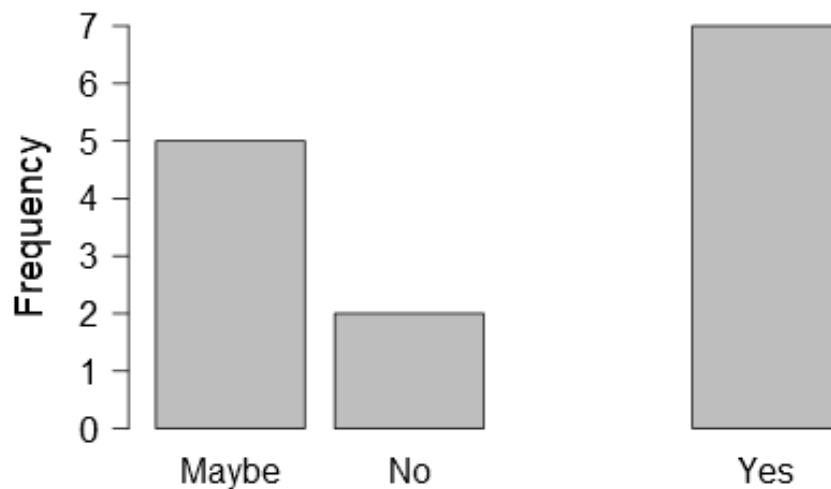
---

**Q25: Would you participate more if recreation programs were in a central location, instead of all over campus?**

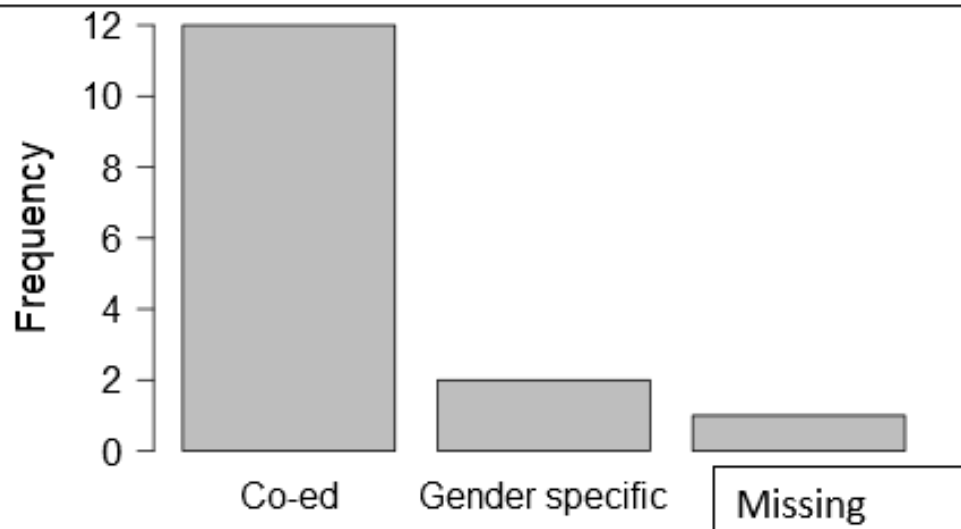
---

	Maybe	No	Yes
Valid	7	3	4

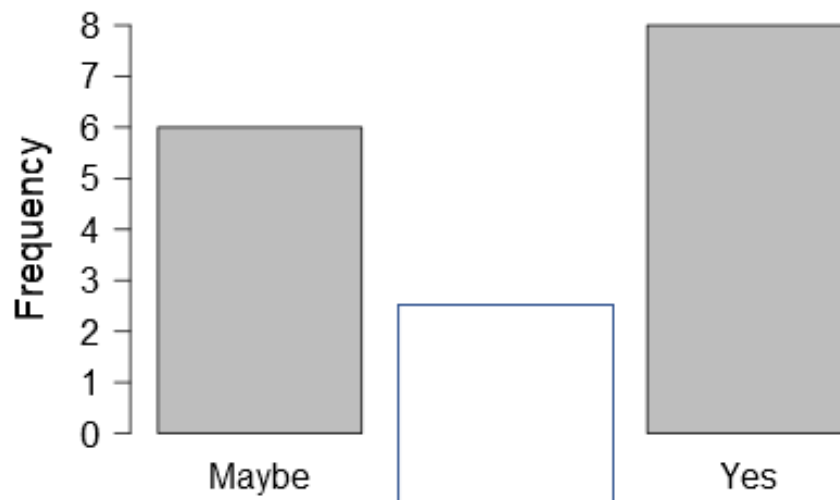
**Q18: Would you participate more in recreation programs if you lived on-campus?**



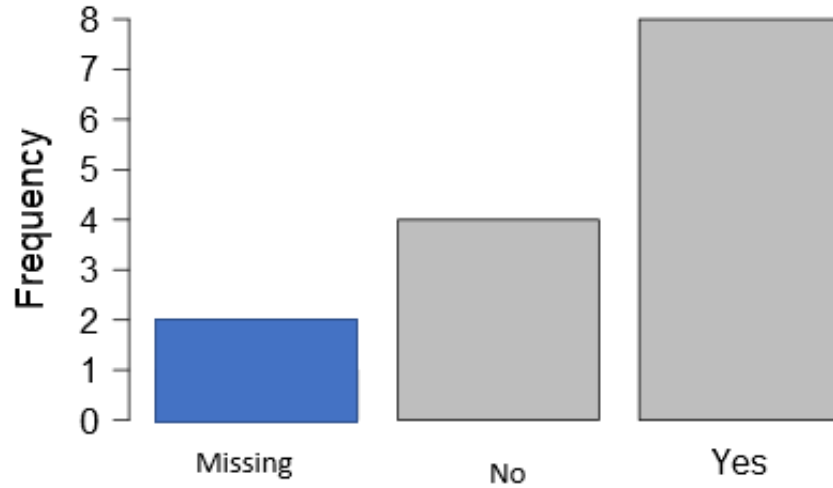
Q19: Would you participate more in recreation programs if they were co-ed or gender specific?



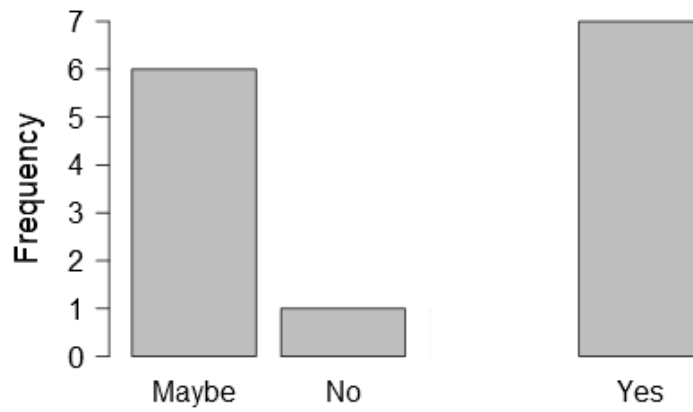
Q20: Would you participate more in recreation leagues if they were promoted more?



**Q21: Are the times of the recreation programs manageable?**



**Q 24: Would you participate more in recreation programs if parking was cheaper/more available?**



- **Qualitative Data**

**Q11: What time are you usually the least busy during the week days?**

- Participant 1: 11:00 am
- Participant 2: 12:00 pm
- Participant 3: 12:00 pm
- Participant 4: 5pm
- Participant 5: evenings
- Participant 6: Fridays
- Participant 7: Friday (no-school) and 2:30 pm to 5:30 pm other days
- Participant 8: Fridays
- Participant 9: 8 to 11 am
- Participant 10: Mornings
- Participant 11: Morning until 12pm
- Participant 12: afternoons
- Participant 13: evenings
- Participant 14: mornings

**Q26: What are your involvements on-campus? Or why are you not involved?**

- Participant 1: "Gyming at golds (GYM)"
- Participant 2: "I commute long hours to school and to work, which leaves me no time to participate in any extracurricular activities"
- Participant 3: "I do not live on campus"
- Participant 4: "I play on a ultimate frisby rec team that is "co-ed" and at a perfect competitive level for me"
- Participant 5: "I'm not very involved on campus, having to commute makes it hard to get involved"
- Participant 6: "No involvements."
- Participant 7: "Not involved due to limited free time"
- Participant 8: "Not involved, busy with school"
- Participant 9: "Not involved, too busy"
- Participant 10: "Rec Volleyball and UBC Boxing Club"
- Participant 11: "Too busy with school"
- Participant 12: "Volleyball, busy with school"
- Participant 13: "busy studying and nothing really speaks to me"

**Q27: What would encourage you to participate in recreational programs?**

- Participant 1: "A skilled team of rugby players"
- Participant 2: "Better advertising?"
- Participant 3: "Better times"
- Participant 4: "Friends also participating"
- Participant 5: "Friends participating, cheaper parking"
- Participant 6: "If I knew about them in more details in my earlier years"
- Participant 7: "If more of my friends participated"
- Participant 8: "Living closer to campus and having more free time"
- Participant 9: "Living closer to campus."

- Participant 10: “More friends participating, better promotion of events”
- Participant 11: “Programs that are active during reasonable times as opposed to later in the day”
- Participant 12: “if people talked more about the opportunities”
- Participant 13: “more social events perhaps... I am pretty satisfied as of now”
- Participant 14: “better advertising”

**Q29: What changes would you like to see made to UBC recreation programs so that you could participate?**

- Participant 1: “Advertisement”
- Participant 2: “Better promoted”
- Participant 3: “Better promotion of events, some events not always on Sundays”
- Participant 4: “Cheaper, easier to join as singles (not as a team)”
- Participant 5: “Different times that work better with my schedule”
- Participant 6: “Free/low cost, at reasonable times during the day and semi-low commitment”
- Participant 7: “I don't really know much about the recreation programs as I commute to school and often have to head out right after. I think there is nothing to change”
- Participant 8: “It's not that I don't like the programs, I just do not want to participate in any”
- Participant 9: “More advertisement for programs”
- Participant 10: “Promotion of programs, more email reminders and posters”
- Participant 11: “Tryouts”
- Participant 12: “less restricted policies on time... more time flexibility in terms of when events/programs are offered”
- Participant 13: “more advertising. Not simply on paper but people explaining what events are being held or how to join a rec team perhaps”

## Recruiting Poster

**Help us know what you think of UBC recreational opportunities!**

**Who are we?** We are Kin 464 Students here at UBC!

**Why?** We are conducting a study to give recommendations to UBC on how they can improve their recreational programs for you!

**How?** You can help us by completing our anonymous online survey.  
We acknowledge that all the information gathered for our research will remain confidential.

---

**Survey Link:** [https://ubc.ca1.qualtrics.com/jfe/form/SV\\_cToAYHoVWRTvi6N](https://ubc.ca1.qualtrics.com/jfe/form/SV_cToAYHoVWRTvi6N)

---

**Disclaimer**

"UBC SEEDS Sustainability Program provides students with the opportunity to share the findings of their studies, as well as their opinions, conclusions and recommendations with the UBC community. The reader should bear in mind that this is a student research project/report and is not an official document of UBC.

Readers should bear in mind that these reports may not reflect the current status of activities at UBC"

### Link to online survey

[https://ubc.ca1.qualtrics.com/jfe/form/SV\\_cToAYHoVWRTvi6N](https://ubc.ca1.qualtrics.com/jfe/form/SV_cToAYHoVWRTvi6N)

## Recruiting Social Media Content



Hello friends! I am in KIN 464 (Health Promotion and Physical Activity) and researching the differences in UBC recreation program participation between UBC students living on-campus and UBC students commuting to campus. I would really appreciate your help with the research so please click the link below and fill out the short online survey. Thank you!"

[UBC.CA1.QUALTRICS.COM](https://UBC.CA1.QUALTRICS.COM)



**Online Survey | Built with Qualtrics Experience Management™**

Qualtrics makes sophisticated research simple and empowers users to capture customer, product, brand & employee experience insights in...

Vancouver Campus

Move UBC

# Are you a UBC student?

The Sitting Epidemic | Make Your Move | Move U Crew | Become a Partner | Blog | #MoveUBC

## MAKE YOUR MOVE

Learn how you can start moving.

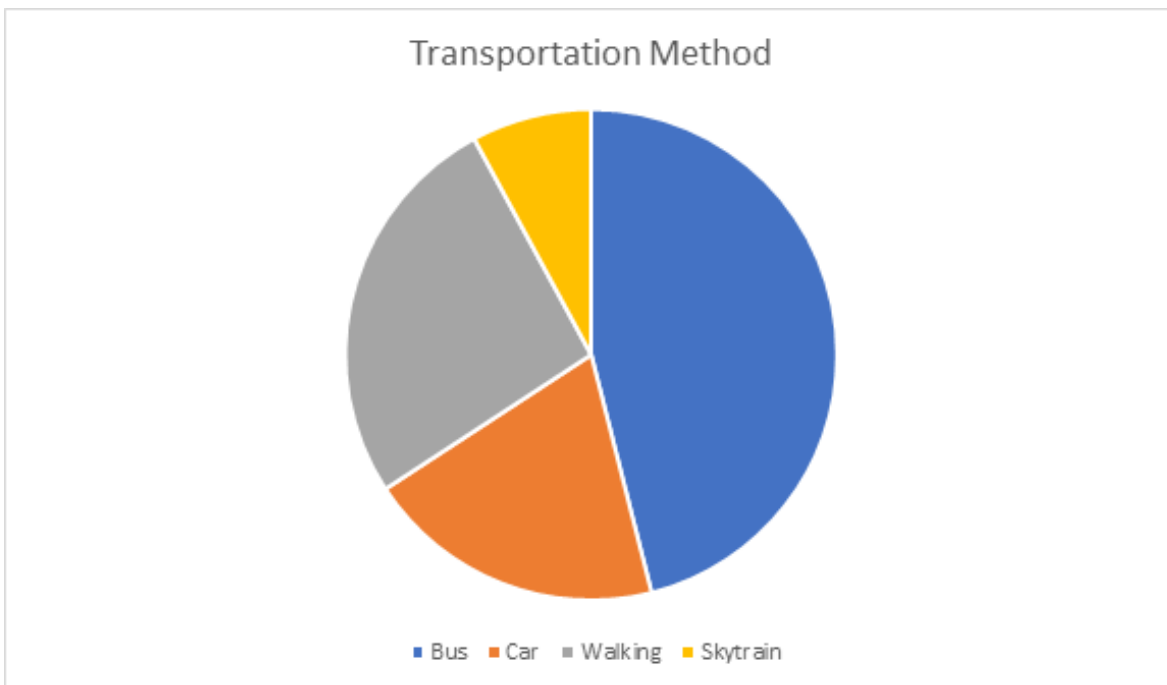
Please use the link to access our online survey and help with our KIN 464 research

[https://ubc.ca/1.qualtrics.com/jfe/form/SV\\_cToAYHoVWRTvi6N](https://ubc.ca/1.qualtrics.com/jfe/form/SV_cToAYHoVWRTvi6N)

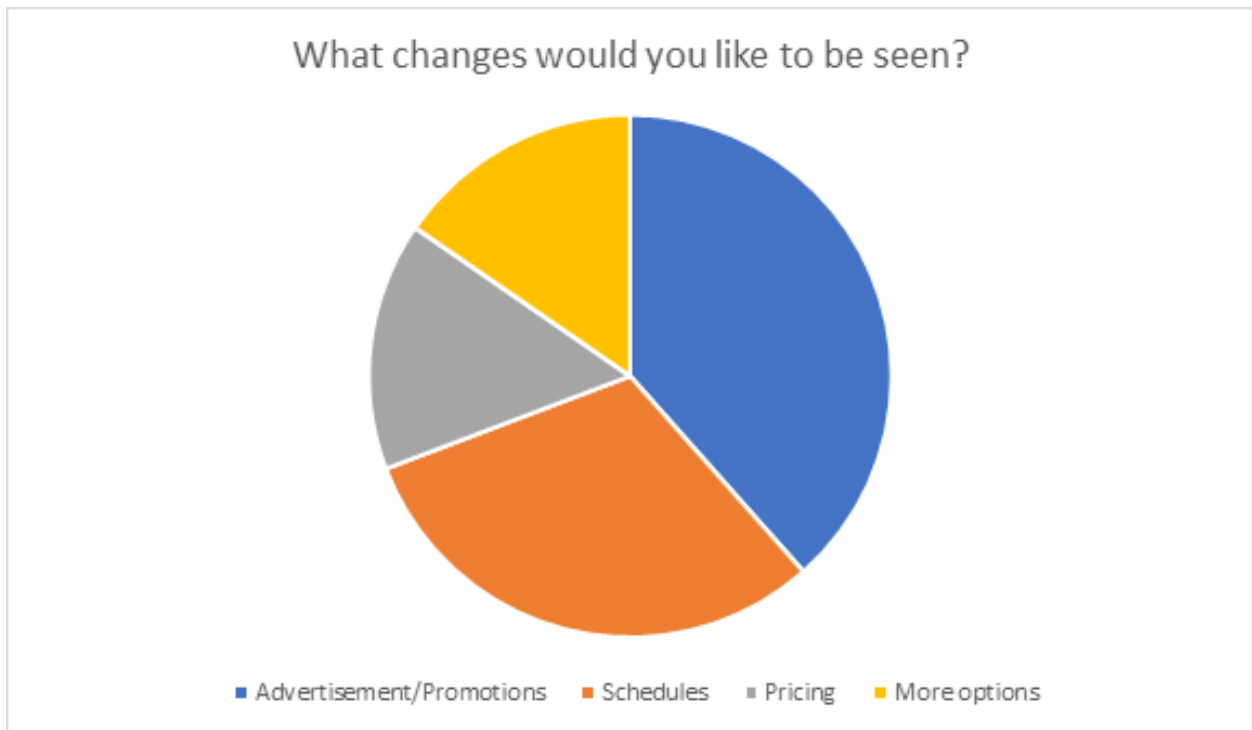
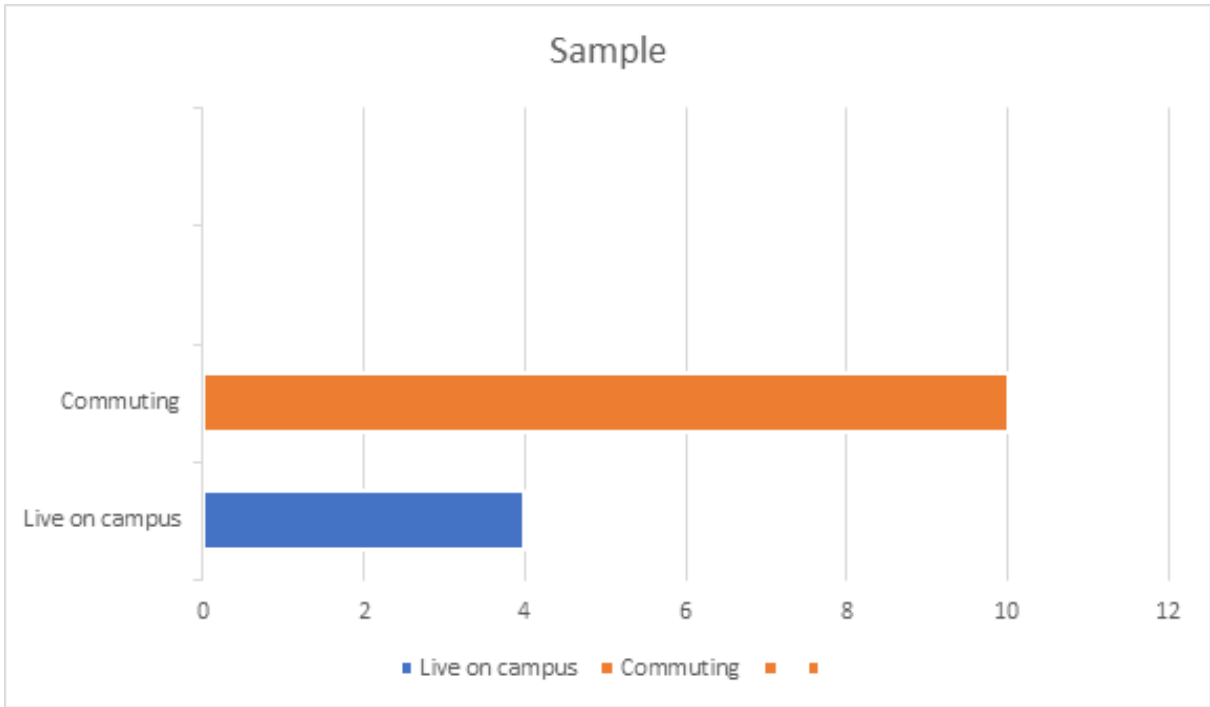
Small changes can make a big impact and help reduce health issues and stress, increase productivity and contribute to our overall psychological well-being. Plus, exercise can be enjoyable especially when combined with activities! By starting small and setting reasonable goals, you can ensure that movement becomes part of your daily routine.

Top 5 Stretches For Seden...

## Graphs







What would encourage you to participate in recreational programs?



- Better advertising/promotion
- Better times/scheduling
- More friends participating
- Living closer to campus

## Consent Form on Qualtrics

---

### Participant Consent Form for Class-based Projects

#### Principal investigator:

Negin Riazi (PhD Candidate, School of Kinesiology, Faculty of Education)

#### The purpose of the class project:

To gather knowledge and expertise from community members on topics related to physical activity, recreation, and health promotion.

#### Study Procedures:

With your permission, we are asking you to participate in an online survey. With the information gathered, students will critically examine how different individuals understand or engage in health promoting activities or health promotion initiatives.

#### Project outcomes:

The information gathered from survey questions will be part of a written report for the class project. The written report will be shared with the community partners involved with the project. Summaries of findings will also be posted on the following websites. No personal information/information that could identify participants will be included in these reports.

#### UBC SEEDS Program Library:

<https://sustain.ubc.ca/courses-degrees/alternative-credit-options/seeds-sustainability-program/seeds-sustainability-library>

#### Potential benefits of class project:

There are no explicit benefits to you by taking part in this class project. However, the interview will provide you with the opportunity to voice your opinion on your experiences with health promoting activities or initiatives in a broad sense and will provide the students with an opportunity to learn from your experiences.

#### Confidentiality:

Maintaining the confidentiality of the participants involved in an interview is paramount, and no names will be asked for.

At the completion of the course, all data (i.e. notes) and signed consent forms will be kept in a locked filing cabinet in Negin Riazi's office in the Population Physical Activity Lab (2259 Lower Mall) at the University of British Columbia. All data and consent forms will be destroyed 1 year after completion of the course.

#### Risks:

The risks associated with participating in this research are minimal. There are no known physical, economic, or social risks associated with participation in this study. Although there is a schedule of questions, the person you are interviewing is free to share what they would like, including refusing to answer specific questions. You should know that your participation is completely voluntary and you are free to withdraw from the interview and there will not be negative impacts related to your withdrawal. If you withdraw from the study, all of the information you have shared up until that point will be destroyed.

#### Contact for information about the study:

If you have any questions about this class project, you can contact Negin Riazi by phone at 604-822-5288 or by email at [negin.riazi@ubc.ca](mailto:negin.riazi@ubc.ca)

#### Research ethics complaints:

If you have any concerns or complaints about your rights as a research participant and/or your experiences while participating in this study, contact the Research Participant Complaint Line in the UBC Office of Research Ethics at 604-822-8598 or e-mail [RSIL@ors.ubc.ca](mailto:RSIL@ors.ubc.ca) or call toll free 1-877-822-8598.

#### Consent:

Your participation in this study is entirely voluntary and you may refuse to participate or withdraw from the study at any time.

Answering the questions below indicates that you consent to participate in this study.

---