

Factors influencing a Commuter Student's Decision when Choosing a Recreational Facility

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Executive Summary

Recreational facilities are commonly used in the university student population, from the access to weight rooms, group activities, and sport-related endeavours, partaking in a fitness centre can be a crucial component in the daily lives of these individuals. With the new recreational centre opening on the Vancouver campus of the University of British Columbia, Rec North, understanding the environmental, social, and personal aspects of what attracts students to a certain facility is crucial, especially for those who commute and have a plethora of options when choosing a facility to commit to.

In this study, the aspects regarding the characteristics and requirements commuter students consider when selecting a recreational facility as well as the specific factors that impact their decision when it comes to choosing which facility to attend are explored.

This study uses a mixed methods approach. Quantitative analysis is conducted to understand the overarching importance of certain factors within the sample when it comes to certain factors and qualitative descriptions to provide a further understanding on personal perceptions and considerations that contribute to the decision making process when finding a recreational facility.

Through this study, it is evident that the most important contributing factors to the deciding of which recreational facility to attend includes location regarding the proximity to the individual's home location and the cost of the facility. The physical environment within a facility including the equipment provided, the cleanliness, and maintenance of the change rooms was also an important consideration when selecting a recreational environment. On the other hand the social environment did not have a significant impact when choosing a recreational facility. It was found that women give greater consideration to how comfortable they would feel while exercising than men and that students who commute more than 60 minutes consider the distance of the facility from campus less than students who live less than 60 minutes away.

Recommendations to the partners at UBC Recreation were provided on the basis of the responses received in the Likert Type statements as well as open-ended response questions allowing participants to provide suggestions to make UBC facilities more accessible to them as Rec North opens. The recommendations to the partners included extending the hours to go later into the night to allow more flexibility to commuting students, private space for women (trans-inclusive) to exercise using equipment, real-time capacity updates made available on the UBC Recreation website to inform users of how busy the facility is, change rooms that are more accessible to commuter students by providing towels and soap, and an upgraded membership allowing users who value privacy to have access to extended hours.

The purpose of this study was to investigate the factors that play an active part in commuter students' decisions when selecting a recreational facility in order to provide UBC Recreation with actionable recommendations to implement in order for UBC recreational facilities to be more accessible to commuter students.

Introduction

Recreational facilities are primarily public settings that allow for increased participation in physical activity through a predominantly non-organized structure, like gyms, with some facilities also including an organized structural component, such as fitness classes (Deelen et al., 2018). According to Statistics Canada (2022), there are 81,682 total culture, recreation, and sports facilities within the country. Included in this statistic are over 8,000 indoor-based facilities, giving Canadians a wide array of options in regard to what facility they could attend (Statistics Canada, 2022). Several factors can impact the appealing nature of a particular recreation centre, which highlights the importance of understanding the difference between making a choice and making a decision when honing in on the ultimate recreational facility. A choice can be defined as the ability to consider several alternatives, thus creating space for an individual to evaluate what is available to them without providing a definitive answer (Nowell-Smith, 1958). In comparison, a decision is a committed deliberation, leading the individual to a conclusion (Nowell-Smith, 1958). By exploring the deviation between these two terms, internal and external influences can be factored in to make a long-lasting commitment to a particular recreation facility. Considering choices and decisions when it comes to deciding on the best recreational facility for an individual may be crucial, and according to existing research, the common factors one may consider when attempting to choose and decide between exercise facilities are the physical environment, social setting, individual perceptions, and accessibility (Rapport et al., 2018; Brown et al., 2014).

Current Knowledge

Based on the current knowledge of what influences a person to choose and decide between fitness centres, there have been many proposed avenues of common findings.

Physical Environment Factors

A common finding that was analyzed by researchers is the environment of the fitness centre. Rapport et al. (2018) evaluated the gendered effects of a fitness centre, and concluded that cardio machines attracted more women patrons whereas the free weights attracted more of a male presence. In another study, it was found that environments with a more non-organized atmosphere compelled several non-competitive and novice patrons, in comparison to organized sporting endeavours which attracted more competitive athletes and experienced gym goers (Deelen et al., 2018). In a study done by Bartha and Bába (2021), the micro aspects of choosing between fitness facilities such as the overall cleanliness of the facility, the equipment provided, and the quality of service were outlined. Gender-based perspectives, organization, and generic facility aspects collectively make up the environmental factors of a fitness centre, and these factors have been shown to influence an individual's choice.

Social Setting

The social atmosphere of the facility, including the communication between staff and their patrons is another factor that influences why an individual may decide on a specific fitness centre. In a study done by Rapport et al. (2018), there was a strong emphasis on gym goers adapting to the limited social interaction of fitness centres. Through the use of headphones and no external feedback from gym personnel, this social environment emphasized a more prominent focal point on individual behaviour and priority, over community gain (Rapport et al., 2018). On another note, Brown et al. (2014), analyzed the motivational climate of a university recreation centre, where the facility had a welcoming and positive atmosphere brought on by staff and other gym goers. In creating this atmosphere, they found that it played a key role in enticing individuals to use that facility (Brown et al., 2014). In addition to this, Deelen et al. (2018) found

that attaining social goals was a key motivator when it came to engaging in sport behaviour. Research has highlighted that individuals may have different perspectives about what social setting best motivates their desire to participate in physical activity, in turn influencing the facility they will attend.

Individual Perceptions

In addition to the environment, social setting, and communication, another common theme in the literature highlighted an individuals' own perceptions of themselves in a health and fitness related context. It was identified that consistent gym users experienced more confidence and routine in their fitness endeavours by going through a perceptual change in their own bodies, self-image, or self-consciousness (Rapport et al., 2018). Not only this, but motivation for individuals to utilize the fitness facilities was a direct result of wanting to preserve one's health, and one's own perceptions of their bodies or wanting to alter their bodies (Bartha & Bába, 2021). Based on the literature provided, evaluating the self perceptions of one's fitness identity is another common factor in the influence of choosing and deciding on a fitness centre.

Accessibility

One of the last factors identified throughout the literature was accessibility, and how it influences choosing and deciding between a fitness centre. When considering the accessibility of a facility, both geographical location, along with travel time were emphasized (Jang & Choi, 2018). Moreover, in a study that examined a university's fitness facility, located on its campus, they aimed at collecting staff perceptions about the location's accessibility, including the cost of a membership and the hours of operation (Brown et al., 2014). The researchers found that the location was convenient, and additionally, since it was free to staff, there was more of an incentive to use these given facilities (Brown et al., 2014).

Collectively, the current research focuses on a variety of factors that may influence an individual in choosing or deciding between a fitness centre.

Gaps in the Knowledge

When considering the current knowledge, it is evident that there is a lack of consideration for students who attend university and more specifically, those who commute to and from campus. Commuter students are individuals who live off campus throughout the entirety or partiality of their university degree (Stalmirska & Mellon, 2022). With this in mind, there is little evidence as to how commuter students, specifically those who attend The University of British Columbia (UBC) Vancouver campus, choose and decide between a fitness centre. Currently, UBC has two main fitness centres, ARC and Birdcoop, although currently there is the development of an additional facility underway (The University of British Columbia, n.d.). With the opening of this new facility, Rec North, there is a need to evaluate how to encourage commuter students to utilize these facilities in comparison to recreation facilities without a UBC affiliation. It is estimated that 73.4% of undergraduate students, 90.1% of masters students, and 80.9% of doctoral students at UBC reside off-campus and therefore commute to campus for scholarly instruction (The University of British Columbia, 2023). Commuter students have a greater opportunity to utilize different recreation facilities, including those on campus while attending UBC classes, or facilities close to their designated communities.

While the aforementioned studies focused on the effects of factors when picking a fitness centre, there is a lack of literature inclusive of specific populations. Emphasizing research on specified populations, such as commuter students, could then play a vital role in understanding whether the existing literature outlining environmental, social settings, individual perceptions, and general accessibility as key factors can be applied to this population. Along with this,

gaining further insight into these factors with the specified population may identify whether the discrepancy between making a choice and decision is important.

Future Avenues

Given the current research on choosing and deciding between a fitness centre, the future avenues of research, with the proposed purpose, would highlight how assessing the physical atmosphere, location, and social setting can impact an individual's final decision on a recreation facility. Furthermore, considering how certain social implications can affect perceptions, may assist in concluding how small effects in the atmosphere (i.e. communication, gender stereotypes, equipment, cleanliness) can play a vital role between a student choosing a recreation facility, and deciding what is the right fit. Lastly, geographical location and the accessibility to these centres is a key component when one chooses a fitness facility, but when considering how this could be impactful or ever changing on a student's own feasibility, it is important to consider whether the hours being provided, prices charges, and services meet the needs of the individual.

In conclusion, these factors can be multilayered, and there are many avenues to explore when attempting to examine how an individual chooses between and decides on a particular fitness centre. Overall, an important area to consider within future research is what the most prevalent factors are for a commuter student when choosing and deciding on a specific recreation centre.

Research Question

What factors impact the decisions of UBC commuter students when choosing a recreation facility?

Methods

Target Population

The target population for the study was commuter students who attend UBC Vancouver campus. This demographic makes up a large majority of the student population at UBC, including undergraduate, masters, and PhD students and therefore it is worth understanding the enabling and inhibiting factors that influence their decision to attend a recreational facility since they have access to many facilities in their communities or on campus.

Inclusion Criteria

For individuals to have been eligible for the study, they needed to be a student enrolled at the UBC Vancouver campus in an undergraduate, masters, or PhD program and live off campus. For the purpose of this study, living off campus was defined as students living outside of the UBC Endowment Lands. Students enrolled at a full-time and part-time status were included in the study.

Exclusion Criteria

Any student enrolled at UBC Vancouver campus living within the boundaries of the University Endowment Lands were ineligible to partake in this study. Additionally, any participant who was not enrolled as a student at UBC Vancouver were excluded from the data collection.

Recruitment Target and End of Data Collection

In this study, the target population includes commuter students at UBC Vancouver which enabled the possibility to survey many different participants. Considering this was a large sample size for a mixed methods study, it was in the best interest of the study to aim for many responses in order to give the study more informational power (Malterud et al., 2016). With that being said,

the recruitment aim for this study was to recruit 100 commuter students to complete the given survey.

Research Design and Plan

This study aimed to identify and understand the most prevalent factors for a commuter student when choosing and deciding a specific recreation centre to attend. Students were recruited to participate in the Qualtrics survey created and tailored to the research question posed in this project through graphics posted on social media platforms such as Instagram, as well as through word of mouth. Members of the research team distributed the survey to professors and their social groups to expand the survey's reach. The social media posts consisted of the curated research project poster (Appendix C) which included the purpose of our study, project ID, principal investigator and link to our survey. Responses to the Qualtrics study were stored and analyzed in Qualtrics. The survey was opened from March 18th to April 1st, 2024, providing researchers an adequate amount of time to analyze responses and generate an accurate report after the survey closed. The aim was to recruit a minimum of 100 credible and valid responses. Though 99 responses were recorded, 84 were included in data analysis after scanning the completed surveys for validity.

Data Collection

To identify the importance of different factors when respondents were making their decision to select a recreational facility, a variety of question types were used including multiple choice, select all that apply, 5 point Likert Type, ranking, and open-ended questions. The survey began by asking demographic questions such as the location in the Greater Vancouver Area an individual commutes from, commute time, mode of transport, and their home faculty to lend the ability to categorize response trends by demographic groupings. According to existing research,

the most important factors that influence decision making when selecting a recreational facility include the physical environment, the social environment, individual perceptions, and accessibility (Rapport et al., 2018; Brown et al., 2014). As such, the survey addressed specific components within each category to determine the greater influence of each of those four factors when deciding on a recreational facility using a series of 5 point Likert Type style questions. The survey asked respondents to rank physical environment, social environment, individual perceptions, and accessibility from most to least important when choosing a recreational facility with the previous section of Likert-type questions serving as an outline for the definition of what was included within each topic. Finally, the survey concluded with open-ended questions that provided the opportunity for participants to include additional considerations and suggestions that would make UBC Recreation more accessible to UBC commuter students.

Data Analysis

Descriptive statistics were used to analyze quantitative data to compute mean, median, mode, standard deviation, and percentiles of population statistics and responses to 5-point Likert-type scales. Ranking questions were analyzed by multiplying a factor's ranking value of 1-7 by the frequency of times it was placed in that ranking. A final ranking was determined by the factor with the lowest product since this meant it was ranked higher more often, with the largest product meaning it was ranked low most often. Quantitative analysis enabled us to understand the prevalence and significance of certain factors such as cost, location, and programming options in commuters' decision-making processes.

Qualitative descriptive statistics was used to describe and interpret non-numerical qualitative data, particularly from open-ended question responses. Thematic analysis was used to identify themes, trends and patterns from responses to open-ended questions that may not have

been captured through descriptive analysis alone. Specifically, the aim was to identify themes related to the importance of factors such as the physical and social environment within a recreational facility, considerations regarding the hours of operation as well as additional themes that may not have been considered in the initial design of the survey.

The integration of both approaches allowed for a comprehensive understanding of commuter students' preferences and priorities when selecting a fitness centre. While descriptive statistics offered a quantitative overview, qualitative descriptive analysis added qualitative depth and context, ensuring a more holistic interpretation of the survey findings. By employing a mixed-methods study design, we aimed to provide insights that can inform the development of strategies and initiatives to better meet the needs of commuter students in their fitness centre choices.

Results

Demographic Data

The survey population consisted of full-time students enrolled at the University of British Columbia during the 2023-2024 academic year (see Table A6 in Appendix A). A total of 99 students participated in the survey. Although this sample size was deemed sufficient to achieve the study's objectives, it should be noted that 15 of the responses include missing data and were therefore excluded from the valid percentages.

Survey responses included students from various faculties, with notable representation in Kinesiology (45.45%), Arts (16.88%), Business (12.99%), and Science (11.69%), and comparatively fewer participants from Education (3.90%), Applied Science (2.60%), Land and Food Systems (2.60%), Law (1.30%), and Economics programs (1.30%) (see Table A4 in Appendix A). The majority of respondents are undergraduate students (96.05%) with a smaller

percentage of participants enrolled in masters, PhD or Juris Doctor programs (see Table A5 in Appendix A). The population consisted of students who identified as men (32.5%), women (63.16%), and non-binary/ third gender/ queer (1.32%) (see Table A7 in Appendix A).

The demographic profile of participants in this survey reflects a diverse group of individuals commuting from various communities to campus. Among the respondents, the majority commute from the City of Vancouver (59.74%), followed by Burnaby (18.18%), Richmond (7.79%), and other locations such as Surrey (2.60%), West Vancouver (2.60%), Coquitlam (2.60%), Delta (1.30%) and Langley (1.30%) (see Table A1 in Appendix A). The commute times vary, with significant portions of participants reporting commutes of 15-30 minutes (31.17%) and 30-60 minutes (35.06%) (see Table A2 in Appendix A). Regarding commuting methods, public transit is the most common choice (50.65%), followed by driving alone (15.58%) and multimodal transportation (29.87%) which includes a combination of driving (carpool), walking, and cycling (see Table A3 in Appendix A).

Multiple Choice Questions

63.16% currently have access to a recreational facility or hold a membership, while 36.84% do not (see Table A8 in Appendix A). Among those with access or membership, 76.60% rely on ongoing memberships, while 21.28% use drop-ins for recreational facility access (see Table A14 in Appendix A).

Respondents that do not use Recreational Facilities

The primary factors influencing students' decisions to abstain from recreational facility usage, in descending order of importance, include time constraints (37.50%), cost (21.88%), lack of accompanying peers (17.19%), challenges in finding a suitable facility (9.38%), engagement in non-facility-based physical activities (9.38%), disinterest in physical activity (3.13%), and

health-related constraints (1.56%) (see Table A9 in Appendix A). Students who have never held a UBC recreation membership reported the most significant barriers as time, inconvenient location, unfavourable social environment, cost, inadequate program and equipment offerings, and restricted operating hours (see Table A10 in Appendix A).

Respondents that use Recreational Facilities

Among the students who hold recreational memberships, 37.50% currently hold UBC memberships, 58.33% hold non-UBC memberships, while 4.17% have memberships to both (see table A11 in Appendix A). Of the respondents who use recreation facilities, 21.21% reported going 2-3 times a week, which was the most common frequency, followed by 11.11% going 4-5 times a week, 9.09% going less than once a week, and 6.06% going once a week (see Table A13 in Appendix A). Regarding the activities undertaken at recreational facilities, respondents were given the option to select multiple activities they partake in. From this the respondents selected participation in weight room activities significantly more than other activities (see Table A15 in Appendix A). This was followed by participation in swimming, outdoor recreational activities, organized fitness classes, registered sports leagues (includes UBC Intramurals), drop-in activities (includes climbing gyms) and ice skating (see Table A15 in Appendix A).

UBC Memberships. Of the factors identified in the survey questions, respondents that hold a UBC membership reported the most important factors when deciding which facility to attend included the cost (83.33%), whether it was easy to fit into their schedule (88.33%), and that the location was convenient (72.22%). Some other factors that influenced their choice to use a UBC facility included equipment meeting needs (44.44%), hours of operation (33.33%), and the program meeting needs (5.56%) (see Table A12 in Appendix A).

Non-UBC Memberships. For respondents that hold a non-UBC membership the most important factors when deciding on that facility were how easy it was to fit in their schedule (85.71%), the convenience of the location (96.43%), and that the equipment met their needs (64.29%). Some other factors that influenced their choice to use a UBC facility included the cost (50.00%), hours of operation (46.43%), and the program meeting their needs (10.71%) (see Table A12 in Appendix A). For students who previously held a UBC recreation membership, the decision not to renew was primarily influenced by location inconvenience, time, unfavourable social environment, moved off campus, inadequate equipment, financial cost, limited operating hours, and overcrowding (see Table A10 in Appendix A).

Likert-Type Questions

The Likert-Type statements were separated into categories including physical environment, social environment, individual perceptions, and accessibility. Respondents were asked to select a number from 1 through 5, with 1 being strongly disagree (not at all important) and five being strongly agree (very important), to represent the degree to which they agreed with the statements when selecting a recreational facility. As such, the mode, median, mean, and standard deviation of each statement was summarized in tables B1 through B7 in Appendix B.

Physical Environment

All data regarding the physical environment category of Likert Type statements can be found in table B1 in Appendix B. When asked whether respondents take particular care in selecting recreational facilities based on available programming and accessibility (including universal change rooms, accessibility ramps, etc.), the means were 2.79 and 2.88, respectively, indicating that these factors were somewhat unimportant to neutral. The mean and mode of selecting a recreational facility based on equipment was 3.61 and 4.00, respectively, highlighting

that equipment is a somewhat important factor when selecting a recreational facility. Statements regarding cleanliness of a facility were rated highly. When asked if it is important to respondents that the facility has clean and maintained change rooms and bathrooms, the mean was 4.22 with the mode being 5.00. Respondents reported a mean of 4.00 when asked if lack of cleanliness of a recreational can deter their interest in attending.

Social Environment

The data regarding the social environment category of Likert Type statements can be found in table B2 in Appendix B. All of the statements within the category of social environment were rated below a mean of 4.00 indicating that each factor was thought to be within the level of not very important, neutral, and somewhat important. The importance of exercising with people of similar ages (m=2.62), friendliness of the staff (m=3.27), importance of feeling confident in the space (m=3.92), and the motivational environment from other users (m=3.23) had a range from not very important to neutral/somewhat important.

Individual Perceptions

The data regarding the individual perceptions Likert Type statements can be found in table B3 in Appendix B. Respondents reported that it was somewhat important when selecting a recreational facility that they feel comfortable in the facility when exercising (m=4.19) with the mode being 5.00. The importance of having the options of private coaching and personal training at a recreational facility (m=2.02) as well as the staff and instructors having an impact on how comfortable respondents feel while using the facility (m=3.20) were deemed as somewhat unimportant and neutral, respectively.

Accessibility

The data regarding the accessibility category Likert Type statements can be found in table B4 in Appendix B. The location and travel time of the facility from home were the highest rated important factors influencing selection of a recreational facility with means of 4.66 and 4.57, respectively. Cost of the recreational facility was somewhat important with a mean of 4.22. Travel time of the facility from campus ($m=3.90$) and the hours of operation of the facility ($m=3.83$) were the lowest rated factors within this category.

Ranking Questions

When asked to rank which of the four categories between the physical environment, social environment, individual perceptions, and accessibility were the most important when selecting a recreational facility, the results demonstrated that the most important factor was the physical environment, followed by individual perceptions and social environment, with accessibility being the least important (see Table B5 in Appendix B). The ranking of the categories contradict the individual scores of importance within each category since accessibility had some of the highest means of importance (3.90 to 4.66) compared to the other categories, yet was ranked the lowest (see Table B4 and B5 in Appendix B).

Respondents were asked to rank characteristics that have recently impacted their decision when selecting a recreational facility. Through multiplying the frequency each characteristic was selected as first to last important characteristic by its rank and taking the lowest score as being the most important, it was found that the characteristics from most to least important were as follows: location, cost of attending, physical environment, social environment within the facility, hours of operation, and programming options (see table B8 in Appendix B).

Gender Differences

The Likert-type statements that were separated to be analyzed by gender can be found summarized in table B6 in Appendix B. The mean, median, and mode of responses for the Likert-Type questions were compared between men and women. The singular respondent identifying as non-binary/third gender did not complete the Likert-Type portion of the survey and was therefore excluded from analysis. It was found that women ($m=4.39$) give more consideration to how confident and included they would feel exercising in a facility than men ($m=3.16$) meaning that women somewhat to strongly agree that feeling confident in a recreational space is important. It was also more important to women that the physical environment has an option for exercising privately and includes hours of operation or spaces for women only than men.

Commute-Time Differences

The Likert Type statements that were separated to be analyzed by commute time can be found summarized in table B7 in Appendix B. Responses between commute time groups (less than 15 minutes, 15-30 minutes, 30-60 minutes, 60-90 minutes, and greater than 90 minutes) were compared to analyze responses to the accessibility Likert Type statements. It was found that the hours of operation were strongly important to individuals who commute greater than 90 minutes ($m=5.00$). The importance of travel time to the recreational facility relative to campus decreased in importance as commute time increased. The importance of the travel time to the recreational facility from respondents' homes were about the same across commute time groups being between somewhat important to strongly important. The location of the recreational facility was of similar importance across commute time groups with the commute time group below 15 minutes having the lowest mean for this category.

Open-Ended Responses

Factors Preventing Respondents from Using the UBC Recreational Facilities

Respondents were asked about the factors preventing them from choosing UBC recreational facilities as their facility of choice. The open-ended responses are summarized below thematically.

Location. The location with respect to respondents' homes, commute time, and in respect to fitting in with respondents' schedules was a common theme amongst responses. Responses included "I do not have to come to campus every day, so a 1-hour commute each way just to go to the gym is just not worth it" (anonymous) and "my commute is about 70 minutes on average, so I will only gym when I am on campus, and if I can wake up early enough as I prefer to gym in the morning before starting my day" (anonymous) to include a few examples.

Cost. Many respondents included comments regarding the cost of the membership and lockers or that they already have "a cheaper place to workout at" (anonymous). One respondent mentioned that their "gym membership off-campus is included in [their] rent" (anonymous) and therefore did not need to purchase an additional membership.

Crowdedness. The number of people in the fitness facilities at UBC was a common theme among respondents. Comments included that the facilities have "too many people to get in a good workout" (anonymous) and that it is "too busy to be worthwhile at the times I want to workout" (anonymous). Other comments associated the crowdedness of the facilities to a lack of private space to exercise and can feel "worried about being judged" (anonymous).

Change Room and End of Workout Considerations. The respondents included the inconvenience of having to carry around extra clothes and shower supplies for their workout as well as being concerned about the additional cost of renting a locker. Other respondents

mentioned the cleanliness of the change rooms as not being inviting for end of workout considerations.

Wait Times for Equipment. Similar to the crowdedness and lack of space, as mentioned above, respondents mentioned the long wait times for equipment as a deterring factor from using UBC recreation facilities for their exercise.

Suggestions for Rec North Fitness Centre from Respondents

The following themes came up repeatedly as respondents were asked for suggestions to make UBC recreation and specifically Rec North more accessible.

More Spaces. As mentioned in the previous section, many respondents felt that the crowdedness of the facilities prevented them from being inclined to attend and therefore commented on being hopeful to have more space once Rec North opens. Suggestions included “ensuring the space is big enough to accommodate demand at peak times” (anonymous) and reducing the amount of people in the facility.

Operation Hours. There was a high demand for the facility to be open for longer hours and to be “open late” (anonymous). Respondents suggested being “open later at night on the weekends” (anonymous).

Women Only Area. There was a high volume of suggestions regarding having a women’s only section or “extended women only hours/opening a women only section of the facility” (anonymous).

Private Hours. Similar to the comments regarding women-only hours and spaces, respondents also suggested having “spaces or hours within the space to exercise more privately” (anonymous).

Change Room and Restroom Suggestions. Since it is difficult for commuter students to transport showering materials, it was suggested that the shower facilities come “with soap included” (anonymous). A respondent commented that a “well maintained locker room and change room” (anonymous) would encourage them to attend Rec North. Another respondent provided a suggestion regarding the accessibility of the change rooms stating that,

“The non-accessible toilet stalls at the ARC are actually quite small and I am 5'2. The door almost skims the toilet. I appreciate there are universal stalls, but feel like the design of the gendered changerooms is quite cramped. The Bird coop change rooms are more comfortable and open, but do not have universal change rooms" (anonymous).

Other Considerations. Additional recommendations by respondents included having fans in the cardio space, having a way of connecting with other users to find a gym buddy, and having a space for upper years to store their belongings like Collegia.

Discussion

The aim of this study was to analyze factors that are considered when choosing between a fitness centre and subsequently impacts an individual's final decision on the facility they attend. This study was applied to the population of commuter students at UBC to analyze how their perspective influences their decisions in choosing and deciding between a recreation facility. Information from this research will be used to support Rec North at UBC, by providing insight on what impacts a student's decisions when selecting a fitness centre to help attract a wide variety of users.

Findings

The research under the scope of this study sought to add to existing literature while expanding beyond what is currently addressed as well as apply findings to the population of

UBC. The findings of this study speak to overarching factors that influence individuals when choosing a recreation facility. Although simultaneously this study spoke more specifically to the factors that influence individuals to choose to not attend a recreation facility, to choose UBC facilities, and to choose non-UBC facilities.

From the Qualtrics survey, Likert Type questions were used to evaluate how strongly individuals felt about certain factors that fall under the overarching categories of physical environment, social environment, individual perceptions, and accessibility. While open-ended responses were used to add additional information to the findings. Our data from these questions reinforced what Bartha & Bába (2021) had expressed about the importance of the physical environment. They had stated that cleanliness, quality of equipment, and quality of service was important under physical environment factors. From the respondents, their opinions on the cleanliness of a facility included that they would be more inclined to attend the facility if the changerooms, and bathrooms were well kept which looked more in depth about facility cleanliness than what was expressed by Bartha & Bába (2021). In contrast to what Rapport et al., (2018) had found about the gendered effects on choosing fitness equipment, our study revealed no gendered differences in the equipment that individuals used.

From our data about the social environment it contrasted what was found by Brown et al., (2014) and Deelen et al., (2018). Previous studies had shown that the social environment of a motivational climate and increased social goals was important and drew people to choose that type of facility environment. Although our findings showed that many individuals were quite neutral to the idea of needing a motivating climate, they would rather an environment where they feel confident in the space. Similarly, the individual perceptions of respondents was that if they felt more comfortable in the space they would be more inclined to attend. Rapport et al., (2018)

had stated that more experienced individuals had higher levels of comfort, where our data indicates for individuals to feel comfortable the addition of more private areas would be beneficial.

Our study also took into consideration the gendered effects of individual perceptions, rather than the experience level of the individual. What was found was that women were more likely to consider how comfortable the recreation facility made them feel compared to men. It was also found that individuals did not feel they would be more inclined to attend a facility specifically for private coaching, although this may be able to be explained by the demographic of the survey respondents (45.45% Kinesiology students). Lastly when looking at previous literature surrounding the accessibility of a facility our findings were very consistent with the literature. Brown et al., (2014) and Jang & Choi (2018) had found that location, cost, travel time, and hours of operation were all important factors when choosing a facility, and this was inline with the data collected from survey respondents.

Looking more in depth the survey looked to understand why individuals do or do not attend recreation facilities, and why they may choose a non-UBC facility over the UBC campus facilities. Responses from the qualtrics survey found that 36.84% of respondents reported that they do not attend rec facilities, which led us to look at why they chose to not have a membership. What we found was the main contributing factors included time, cost, and no one to go with, along with a few other factors. This is congruent with the research done by Brown et al., (2014) and Jang & Choi (2018) that emphasized the importance of the social environment of the facility and the accessibility of the facility. Of the other respondents, 63.16% held a membership or have access to a recreation facility, through further questions it was identified that 37.50% held UBC memberships and 58.33% held a non-UBC membership. Of the individuals that held a

non-UBC membership the survey aimed to identify what may be deterring individuals from joining a UBC facility, and why they may have left and not renewed a facility. Our data supported research by Brown et al., (2014) and Jang & Choi (2018) where location, time, the social environment and cost were the biggest factors in choosing a facility other than UBC.

In contrast to previous research this study not only aimed at finding what factors influence choices, and what category of factors would be ranked higher than others. Overall the findings under the scope of this study were sometimes congruent with what was supported in the literature, but also offered some differences. This study was able to provide a more in depth understanding of the decision factors that were relevant to UBC commuter students. Factors under the physical environment expanded on the cleanliness of the facility, looking more towards the upkeep of the bathrooms and change rooms rather than just overall facility cleanliness. Additionally, the findings added to the depth of understanding about individual perceptions, looking at the gendered effects of the need to feel comfortable in a recreation facility, where it was found that women considered this factor more than men and subsequently they scored higher on wanting private spaces to work out in.

Relevancy to the Partners

The findings that are present through our research have relevance to the partners as these reinforce common themes that are currently known in the given recreation facilities, but also address areas where improvements can be made to influence an individual's choice to attend a UBC recreation facility. Location and cost are factors that are commonly brought forward but interestingly, respondents commented on how the physical environment would influence their choice (see Table B1 in Appendix B). This would consist of the maintenance and cleanliness of the facility including its bathrooms, change rooms and other spaces within the building. This

addresses the idea that other than location and cost, the physical environment of the facility can be directed into a more narrow perspective.

Limitations and Future Research

Limitations of this study include convenience sampling, small sample size, length of data collection period, self-reporting bias, and survey design. Through recruitment, we attempted to target a variety of different faculties, however due to convenience, a large portion of responses were from students in Kinesiology (45.45%). Additionally, because our study targeted commuter students, there was a large pool to sample from with commuter students making up a majority of the student population with 73.4% in undergrad, 90.1% in masters, and 80.9% in doctoral studies. Despite this large demographic, the sample size was smaller than expected with 99 survey responses from students, of which only 84 were valid for data analysis. Due to having a smaller sample size this introduces threats to external validity, especially with the given sample size pool being much larger than the sample. As for the length of the study, the data collection period was 14 days which was a limited timeframe to gather data and likely impacted the number of responses collected.

Furthermore, since the research was done through a Qualtrics survey there was a potential for self-reporting bias. The survey questions took self-reported subjective experiences and evaluated them through quantitative measures, which can cause biases with reporting personal experiences in a quantified way. In addition to this, us as researchers tailored questions based on previous findings in the literature, therefore, there was an automated bias of topics we directed at the survey takers, which likely influenced the results of the study. In the design we personally defined concepts in our own words, but realized that this may have caused confusion for the respondents. This was identified because the larger topic of accessibility received many rankings

as an important factor in the Likert Type statement, but was rated the lowest when respondents were asked to rank the categories from most to least important consideration (see table B4 and B5 in Appendix B). It is presumed that accessibility was interpreted as more than just cost and availability, but also in terms of physical accessibility of the facility, which could be due to a lack of properly defining the concept. Overall these limitations likely had implications for our given study and should be considered when taking in the results of this study.

Recommendations

Long Term Recommendations

Recommendation 1: Extending Hours of Operations

There was a high volume of respondents commenting on the hours of operations being an important factor they consider when selecting a recreational facility and stating that the hours of operations prevent them from using UBC Recreation as their recreational facility due to the hours not being broad enough to fit the needs of commuters. Consider extending the hours of operations for the fitness centres to 11PM on the weekdays. This will allow commuters more flexibility to fit in exercise after their classes.

Recommendation 2: Private Hours and Space for Women (trans-inclusive) in Rec North

Though there are currently private hours for women (trans-inclusive) to exercise at the ARC fitness centre, there is limited equipment available. There was a high rate of respondents requesting private hours and fitness facility space for women (trans-inclusive) once Rec North opens. To draw in users who are interested in weightlifting equipment but are intimidated by exercising with others, it would be worth considering setting aside an area in Rec North to be a ‘Womens only (trans-inclusive) space’ that would include machines, free weights, and cables.

Aspirational Recommendations

Recommendation 3: Real-time Capacity Updates

A real-time online status including wait times to get into the facility and the current capacity of the fitness centre on the UBC Recreation website would be beneficial for users to be informed as to whether they have the time to fit in a workout in a free window in their schedule. Since the UBC fitness facilities have a scanner to get into the facilities, there could be a scanner on the way out so that the number of people in the facilities is always known and could be made available on the UBC Recreation website.

Recommendation 4: Upgraded Membership

An additional recommendation to aid in minimizing the crowdedness of the facilities and extending the hours of operations would be to consider an upgraded membership that provides access to a more private facility during extended hours. As an example, members holding this upgraded pass could access the gym from 6AM to 7AM and 10PM to 11PM on weekdays to give them the chance to exercise in a quieter and more private facility. Though the respondents ranked the cost of a facility highly in the factors that influence their decision to select a recreational facility, many respondents also stated the crowdedness of the facility and hours of operation were a barrier to choosing UBC Recreation as their facility of choice. This recommendation would provide an opportunity for those who see great value in exercising at more private times and at extended hours an opportunity to exercise in a setting that suits their needs.

Recommendation 5: Shower and Towel System

Considering the inconvenience for commuters of needing to bring all clothing, toiletries, and additional equipment necessary to school with them if they wish to exercise, it would be worth implementing a towel system and having soap available in showers to reduce what commuter students must bring with them in order to exercise on campus. A towel system could

look like using student cards to unlock access to a towel cupboard or having an exchange system in place like the temporary locker rentals employ. Additionally, having soap dispensers in the showers was recommended in the open-response suggestions as a way to reduce commuters from having to think about carrying toiletries with them to campus.

Conclusion

To conclude our research, we analyzed the factors that influence UBC commuter students' decisions when choosing a recreation facility. Through a mixed methods survey we were able to capture that imperative factors such as location, cost, and the physical environment are important when addressing what impacts their decisions. As commuter students make up a majority of the students at UBC, their voice has a significant impact when addressing this question. Based on the findings, it would prove beneficial for UBC Recreation to look at the main factors influencing these decisions when designing the UBC Rec North facility. Additionally, recommendations have been provided which include extended hours, places for privacy, a patron count that is continuously updated, an upgraded membership, and an improved shower system. These strategies may make it more accommodating for UBC commuter students and may influence the likelihood of their choice of recreation facility being a UBC facility.

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Appendix A
Participant Descriptors

Table A1 - Commuter Status

Do you live outside of the UBC Endowment lands?	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	84	84.85	100.00	100.00
Missing	15	15.15		
Total	99	100.00		
Which city do you commute from?	Frequency	Percent	Valid Percent	Cumulative Percent
Burnaby	14	14.89	18.18	18.18
City of Vancouver	46	48.94	59.74	77.92
Coquitlam	2	2.13	2.60	80.52
Delta	1	1.06	1.30	81.82
Langley	1	1.06	1.30	83.12
North Vancouver	3	3.19	3.90	87.01
Richmond	6	6.38	7.79	94.81
Surrey	2	2.13	2.60	97.40

West Vancouver	2	2.13	2.60	100.00
Missing	17	18.09		
Total	94	100.00		

Table A2 - Commute Time

How long is your commute?	Frequency	Percent	Valid Percent	Cumulative Percent
15-30 minutes	24	24.24	31.17	31.17
30-60 minutes	27	27.27	35.06	66.23
60-90 minutes	20	20.20	25.97	92.21
Greater than 90 minutes	3	3.03	3.90	96.10
Under 15 minutes	3	3.03	3.90	100.00
Missing	22	22.22		
Total	99	100.00		

Table A3 - Mode of Transportation

How do you commute to campus?	Frequency	Percent	Valid Percent	Cumulative Percent
Cycle	1	1.01	1.30	1.30
Drive (alone)	12	12.12	15.58	16.88
Drive (carpool)	2	2.02	2.60	19.48
Public transit	39	39.39	50.65	70.13
Multimodal	23	23.23	29.87	100.00
Missing	22	22.22		
Total	99	100.00		

Table A4 - Faculty Distribution

Which faculty are you in? - Selected Choice	Frequency	Percent	Valid Percent	Cumulative Percent
Applied Science, Faculty of	2	2.13	2.60	2.60
Arts, Faculty of	13	13.83	16.88	19.48
Business, Sauder School of	10	10.64	12.99	32.47
Education, Faculty of	3	3.19	3.90	36.36
Kinesiology, School of	35	37.23	45.45	81.82
Land and Food Systems, Faculty of	2	2.13	2.60	84.42
Law, Peter A. Allard School of	1	1.06	1.30	85.71
Music, School of	1	1.06	1.30	87.01
Science, Faculty of	9	9.57	11.69	98.70
Vancouver School of Economics	1	1.06	1.30	100.00
Missing	17	18.09		
Total	94	100.00		

Table A5 - Program Type

What is your program type? - Selected Choice	Frequency	Percent	Valid Percent	Cumulative Percent
Masters	1	1.06	1.32	1.32
Other	1	1.06	1.32	2.63
PhD	1	1.06	1.32	3.95
Undergraduate	73	77.66	96.05	100.00
Missing	18	19.15		
Total	94	100.00		

Table A6 - Full-time Status

Are you a full time student?	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	74	74.75	100.00	100.00
Missing	25	25.25		
Total	99	100.00		

Table A7 - Gender

What gender do you identify as?	Frequency	Percent	Valid Percent	Cumulative Percent
Man	27	28.72	35.53	35.53
Non-binary/ third gender / queer	1	1.06	1.32	36.84
Woman	48	51.06	63.16	100.00
Missing	18	19.15		
Total	94	100.00		

Table A8 - Access to a Recreational Facility

Do you currently have a membership or access to a recreational facility?	Frequency	Percent	Valid Percent	Cumulative Percent
No	28	29.79	36.84	36.84
Yes	48	51.06	63.16	100.00
Missing	18	19.15		
Total	94	100.00		

Table A9 - Factors contributing to the decision to not attend a recreational facility

What are the biggest factors contributing to your decision to not attend a recreational facility?	Frequency	Percent	Valid Percent	Cumulative Percent
Can't find a facility that meets needs	6	9.38	9.38	9.38
Cost	14	21.88	21.88	31.25
I am not interested in physical activity	2	3.13	3.13	34.38
I have health concerns that limit my physical activity	1	1.56	1.56	35.94
No one to go with	11	17.19	17.19	53.13
Take part in physical activity that does not require a facility	6	9.38	9.38	62.50
Time	24	37.50	37.50	100.00
Missing	0	0.00		
Total	64	100.00		

Table A10 - Factors that prevent respondents from selecting UBC Recreation as their facility of choice

Factors	Did not renew a UBC membership	Have never held a UBC membership
Time	15	28
Hours	5	3
Location	24	25
Moved Off-Campus	11	0
The social environment	9	12
Cost	6	11
Equipment	9	4
Overcrowded	3	0
Programs	1	4

Table A11 - Distribution of location where respondents have their membership

Do you currently have a membership to a UBC recreational facility or a non-UBC recreational facility?	Frequency	Percent	Valid Percent	Cumulative Percent
Both	2	2.02	4.17	4.17
Non-UBC recreational facility	28	28.28	58.33	62.50
UBC recreational facility	18	18.18	37.50	100.00
Missing	51	51.52		
Total	99	100.00		

Table A12 - Prominent Factors that Influenced Respondent Recreational Facility Decision

Factors	UBC membership frequency	UBC membership valid %	Non-UBC membership frequency	Non-UBC membership valid %
Cost	15	83.33%	14	50.00%
Time/ Easy to fit into schedule	15	83.33%	24	85.71%
Hours of operation	6	33.33%	13	46.43%
Location is more convenient and close to home	13	72.22%	27	96.43%
Equipment meets needs	8	44.44%	18	64.29%
Program meets needs	1	5.56%	3	10.71%

Table A13 - Frequency of Attending a Recreational Facility

How often do you go to a recreational facility?	Frequency	Percent	Valid Percent	Cumulative Percent
2-3 times a week	21	21.21	44.68	44.68
4-5 times a week	11	11.11	23.40	68.09
Less than once a week	9	9.09	19.15	87.23
Once a week	6	6.06	12.77	100.00
Missing	52	52.53		
Total	99	100.00		

Table A14 - Use of a Membership or Drop-Ins

Do you have an ongoing membership to a recreational facility or do you rely on drop ins? - Selected Choice	Frequency	Percent	Valid Percent	Cumulative Percent
Drop ins	10	10.10	21.28	21.28
Membership	36	36.36	76.60	97.87
Other	1	1.01	2.13	100.00
Missing	52	52.53		
Total	99	100.00		

Table A15 - Type of Activity

Activities	Response Frequency
Weight room activities	41
Organized fitness classes	8
Swimming	12
Registered sports leagues (includes Intramurals)	7
Ice skating	5
Outdoor recreation activities	9
Drop-in sports	5

Appendix B
Likert Type and Ranking Questions

Table B1 - Physical Environment

	I take careful care in selecting recreational facilities based on the equipment.	I take careful care in selecting recreational facilities based on the programming available.	It is important to me that the facilities have clean rooms and bathrooms.	It is important to me that the recreational facility is accessible to my specific needs (universal change rooms, accessibility ramps, etc.).	If a recreational facility is not maintained in a way that I consider is satisfactory, I will not be inclined to attend it.
Valid	67	66	67	67	67
Missing	12	13	12	12	12
Mode	4.00	3.00	5.00	3.00	5.00
Median	4.00	3.00	4.00	3.00	4.00
Mean	3.61	2.79	4.22	2.88	4.00
Std. Deviation	0.97	1.23	0.83	1.20	1.00

Table B2 - Social Environment

	It is important to me that the people using the exercise facility are peers (people of similar age).	The friendliness of the staff or instructors is important to me when selecting and attending a recreational facility.	It is important to me that I feel confident and included in a recreational space.	The motivational environment within a recreational facility from other users is important when choosing a recreational facility.	The social environment is a factor that I take into consideration when choosing my recreational facility.
Valid	66	66	66	66	66
Missing	13	13	13	13	13
Mode	3.00	4.00	4.00	3.00	4.00
Median	3.00	3.00	4.00	3.00	3.00
Mean	2.62	3.27	3.92	3.23	3.30
Std. Deviation	1.20	1.14	1.03	0.99	1.02

Table B3 - Individual Perceptions

	It is important to me that the recreational facility I attend has programming, hours of operation, or spaces for women-only (trans-inclusive).	It is important to me that the physical environment has an option for me to exercise privately.	When choosing a recreational facility, I consider how comfortable I would feel while exercising at this facility.	I feel uncomfortable while being physically active and therefore it is important to me that the recreational facility offers private coaching or personal training services.	Instructors and staff have an impact on how comfortable I feel when I use the facility.
Valid	66	62	62	62	64
Missing	13	17	17	17	15
Mode	3.00	2.00	5.00	1.00	4.00
Median	3.00	3.00	4.00	1.50	3.00
Mean	2.59	2.95	4.19	2.02	3.20
Std. Deviation	1.31	1.36	0.97	1.27	1.13

Table B4 - Accessibility

	The cost of the recreational facility is important to me when choosing a recreational facility.	The location is important to me when choosing a recreational facility.	The travel time to the recreational facility from my home is important to me when choosing a recreational facility.	The travel time to the recreational facility from campus is important to me when choosing a recreational facility.	I take the hours of operation into consideration when choosing a recreational facility.
Valid	58	58	58	58	63
Missing	21	21	21	21	16
Mode	5.00	5.00	5.00	5.00	4.00
Median	5.00	5.00	5.00	4.00	4.00
Mean	4.22	4.66	4.57	3.90	3.83
Std. Deviation	1.08	0.55	0.86	1.29	1.10

Table B5 - Likert Type Factor categories ranked from most to least important when choosing a recreational facility.

	Frequency of each ranking				Score
	1	2	3	4	
Physical Environment	20	13	13	2	93
Social Environment	6	16	17	7	117
Individual Perceptions	17	15	16	5	115
Accessibility	6	8	3	36	175

Note. Smallest score is the highest ranked characteristic and largest score is the lowest ranked characteristic

Table B6 - Gender Differences

	It is important to me that the recreational facility I attend has programming, hours of operation, or spaces for women-only (trans-inclusive).		I take careful care in selecting recreational facilities based on the equipment.		It is important to me that I feel confident and included in a recreational space.		The social environment is a factor that I take into consideration when choosing my recreational facility.		It is important to me that the physical environment has an option for me to exercise privately.		I feel uncomfortable while being physically active and therefore it is important to me that the recreational facility offers private coaching or personal training services.	
	Man	Woman	Man	Woman	Man	Woman	Man	Woman	Man	Woman	Man	Woman
Valid	25	41	25	42	25	41	25	41	23	39	23	39
Missing	2	7	2	6	2	7	2	7	4	9	4	9
Mode	1.00	3.0	3.00	4.00	4.00	5.00	4.00	3.00	2.00	2.00	1.00	1.00
Median	1.00	3.00	4.00	4.00	4.00	4.00	3.00	3.00	2.00	3.00	1.00	2.00
Mean	1.96	2.98	3.64	3.60	3.16	4.39	3.20	3.37	2.39	3.28	1.91	2.08
Std. Deviation	1.01	1.23	1.00	0.964	1.07	0.67	1.04	1.02	1.27	1.32	1.24	1.31

Note. Excluded 3 rows from the analysis that correspond to the missing values of the split-by variable What gender do you identify as?

Table B7 - Commute Time Differences

	I take the hours of operation into consideration when choosing a recreational facility.					The travel time to the recreational facility from campus is important to me when choosing a recreational facility.					The travel time to the recreational facility from my home is important to me when choosing a recreational facility.					The location is important to me when choosing a recreational facility.				
	15-30 mins	30-60 mins	60-90 mins	>90 mins	<15 mins	15-30 mins	30-60 mins	60-90 mins	>90 mins	<15 mins	15-30 mins	30-60 mins	60-90 mins	>90 mins	<15 mins	15-30 mins	30-60 mins	60-90 mins	>90 mins	<15 mins
Valid	19	22	17	2	3	18	20	16	1	3	18	20	16	1	3	18	20	16	1	3
Missing	5	5	3	1	0	6	7	4	2	0	6	7	4	2	0	6	7	4	2	0
Mode	^a 4.00	5.00	4.00	5.00	4.00	4.00	5.00	5.00	2.00	2.00	5.00	5.00	5.00	5.00	3.00	5.00	5.00	5.00	5.00	4.00
Median	4.00	4.00	4.00	5.00	4.00	4.00	5.00	3.00	2.00	4.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	4.00
Mean	3.63	4.00	3.65	5.00	4.33	4.28	4.30	3.13	2.00	3.67	4.44	4.55	4.81	5.00	4.00	4.50	4.75	4.75	5.00	4.33
Std. Deviation	1.21	1.00	1.17	0.00	0.58	0.67	1.03	1.71	NaN	1.53	1.04	0.95	0.40	NaN	1.00	0.71	0.44	0.45	NaN	0.58

Note. Excluded 2 rows from the analysis that correspond to the missing values of the split-by variable How long is your commute?

^a More than one mode exists, only the first is reported

Table B8 - Characteristics that have influenced respondents most recently when selecting their recreational facility ranked from most important to least important.

	Frequency of each ranking							Score
	1	2	3	4	5	6	7	
Physical environment within the facility	7	13	16	17	12	1	0	215
Social environment within the facility	5	6	15	15	17	7	1	256
Cost of attending	18	18	13	6	6	5	0	177
Programming options	4	3	3	6	18	30	2	327
Location	29	21	9	4	2	1	0	130
Hours of operation	3	5	9	18	11	20	0	287
Other	0	0	1	0	0	2	63	456

Note. Smallest score is the highest ranked characteristic and largest score is the lowest ranked characteristic

Appendix C

Recruitment Poster

WHAT IMPACTS YOUR DECISION WHEN CHOOSING A RECREATIONAL FACILITY?



Who are we recruiting?

Commuter students enrolled at UBC in a Undergraduate, Masters or PhD program

What are we looking for?

We are looking to understand the impact environmental and social factors have on a person when committing to a facility to prepare for the opening of SRC North.

Please direct further inquiries to meighan.prosser@gmail.com

Fill out our survey:



Upon completion of this survey, you will have the chance to win a Lululemon yoga mat or a UBC Rec package.

Please note that this post is public and anyone who likes, comments or shares the link will, by doing so, be associated with the study. The Principal Investigator on this project is Dr. Andrea Bundon (andrea.bundon@ubc.ca)

Project ID: H17-03560-A017

Group 23

Appendix D

Emails to Profs

From:
 Date: Mon, Mar 25, 2024 at 11:25 AM
 Subject: Re: Research project recruitment announcement
 To:

Thanks for letting me promote my research study today in class! Here is a PDF version of the survey poster.

Kirsten Woo

On Sun, Mar 24, 2024 at 11:03 AM
 Sounds great, thank you!

wrote:

On Sun, Mar 24, 2024 at 9:44 AM

wrote:

Yes you can do it tomorrow am.

From:
Sent: Saturday, March 23, 2024 9:10:36 PM
To:
Subject: Research project recruitment announcement

[CAUTION: Non-UBC Email]

Hi

I hope you're enjoying your weekend! I am conducting a survey for my Kinesiology 464 course (Health Promotion and Physical Activity) to research the main factors that impact a commuter student's decision when choosing a Rec Center. My groups findings will then be shared with UBC Rec with the intent that our research will impact the new UBC Rec North building that is currently under construction. Our group is hoping to get some more responses that fall outside of our current 'Kin student' pool in order to get some more well rounded data. I was wondering if it would be possible for me to make a short announcement about it at the beginning of class either Monday or Wednesday this week? I have also included a copy of the recruitment poster. No problem if this is not possible, I totally understand!

Kindly,

WHAT IMPACTS YOUR DECISION WHEN CHOOSING A RECREATIONAL FACILITY?



Who are we recruiting?

Commuter students enrolled at UBC in a Undergraduate, Masters or PhD program

What are we looking for?

We are looking to understand the impact environmental and social factors have on a person when committing to a facility to prepare for the opening of SRC North.

Please direct further inquiries to meighan.prosser@gmail.com

Fill out our survey:



Upon completion of this survey, you will have the chance to win a Lululemon yoga mat or a UBC Rec package.

Please note that this post is public and anyone who likes, comments or shares the link will, by doing so, be associated with the study. The Principal Investigator on this project is Dr. Andrea Bundon (andrea.bundon@ubc.ca)

**please notes identifying or personal information has been removed from the email thread*

Appendix E
Qualtrics Survey

Default Question Block

CLASS PROJECT: Health Promotion and Physical Activity
(KIN 464)

Participant Consent Form: Factors influencing a
Commuter Student's Decision when Choosing a
Recreational Facility - Group 23

Project ID: H17-03560-A017

Principal Investigator: Dr. Andrea Bundon (Assistant
Professor, School of Kinesiology, Faculty of Education)

The purpose of the class project: To gather knowledge
and expertise from community members on the factors
that impact commuter students' decision when choosing a
recreational facility.

Study Procedures: With your permission, we are asking
you to participate in a survey. You may only complete each
survey once. 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 will be part of a written report for the class project. The written report will be shared with campus partners involved with the project. Summaries of findings will also be posted on the following websites. UBC SEEDS Program Library:

<https://sustain.ubc.ca/courses-degrees/alternative-credit-options/seeds-sustainability-program/seeds-sustainability-library> No personal information/information that could identify participants will be included in these reports or shared with campus partners.

Potential benefits of class project: There are no explicit benefits to you by taking part in this class project. However, the survey 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 the research is paramount, and no names of participants will be linked to the data collected. At the completion of the course, all data (i.e. notes) and signed consent forms will be stored on a secure electronic drive by Dr. Bundon. 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. You should know that your participation is completely voluntary and you are free to withdraw from the study 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 Andrea Bundon by email at andrea.bundon@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 . 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.

By proceeding with this survey, I am confirming I have read the above information and agree to participate in this research project.

Inclusion Criteria

Do you live outside of the UBC Endowment lands?

- Yes
- No

Demographic Questions

Which community do you commute from?

- City of Vancouver
- West Vancouver
- North Vancouver
- Burnaby
- Richmond
- Coquitlam
- Delta
- Surrey
- Langley

Other

How long is your commute?

- Under 15 minutes
- 15-30 minutes
- 30-60 minutes
- 60-90 minutes
- 60-90 minutes
- Greater than 90 minutes

How do you commute to campus? (select all that apply)

- Public transit
- Drive (alone)
- Drive (carpool)
- Cycle
- Walk
- Other

Which faculty are you in?

- Applied Science, Faculty of
- Architecture and Landscape Architecture, School of
- Arts, Faculty of
- Audiology and Speech Sciences, School of
- Business, Sauder School of
- Community and Regional Planning, School of
- Dentistry, Faculty of
- Education, Faculty of
- Extended Learning
- Forestry, Faculty of
- Graduate and Postdoctoral Studies
- Journalism, School of
- Kinesiology, School of
- Land and Food Systems, Faculty of
- Law, Peter A. Allard School of
- Library, Archival and Information Studies, School of
- Medicine, Faculty of
- Music, School of
- Nursing, School of
- Pharmaceutical Sciences, Faculty of
- Population and Public Health, School of
- Public Policy and Global Affairs, School of
- Science, Faculty of
- Social Work, School of
- UBC Vantage College
- Vancouver School of Economics
- Other

Block 1

What is your program type?

- Undergraduate
- Masters
- PhD
- Other

Are you a full time student? (at least 9 credits per semester for Undergraduate students or enrolled in a full time program for Masters and PhD students)

- Yes
- No

What gender do you identify as?

- Woman
- Man
- Non-binary/ third gender / queer
- Two-spirit

- Other
- Prefer not to say

Recreational Facility

We are defining recreational facilities as any location where it is necessary to purchase a membership or a drop in pass to participate in physical activity.

Do you currently have a membership or access to a recreational facility?

- Yes
- No

What are the biggest factors contributing to your decision to not attend a recreational facility? (select all that apply)

- Time
- Cost
- Can't find a facility that meets your needs
- No one to go with

- Take part in physical activity that does not require a facility
- I have health concerns that limit my physical activity
- I am not interested in physical activity
- Other

Have you ever had a membership to a UBC recreational facility?

- Yes
- No

What were the deciding factors that lead you to not renew your membership at UBC? (select all that apply)

- Cost
- Time/Didn't fit into schedule
- Hours of operation
- Location was not convenient with commuting
- Equipment didn't meet needs
- Programs didn't meet needs
- I moved from living on-campus to living off-campus
- The social environment did not meet my needs
- Other

What factors are contributing to your decision to not try the UBC recreation facilities? (select all that apply)

- Time/Doesn't fit into schedule
- Cost
- Hours of operation
- Location is not convenient with commuting
- Programs offered don't meet needs
- Equipment doesn't meet needs
- The social environment did not meet my needs
- Other

Do you currently have a membership to a UBC recreational facility or a non-UBC recreational facility?

- UBC recreational facility
- Non-UBC recreational facility
- Both

What are the biggest factors contributing to your decision to use the UBC recreational facilities? (select all that

apply)

- Cost
- Time/Easy to fit into schedule
- Hours of operation
- Location is convenient
- Equipment meets needs
- Programs meet needs
- Other

What are the biggest factors contributing to your decision to use a recreational facility off-campus? (select all that apply)

- Cost
- Time/Easy to fit into schedule
- Hours of operation
- Location is close to home
- Location is more convenient
- Equipment meets needs
- Programs meets needs
- Other

Have you ever had a membership to a UBC recreational facility?

- Yes
- No

What lead you to make the decision to not renew your membership another time? (select all that apply)

- Cost
- Time/Didn't fit into schedule
- Hours of operation
- Location was not convenient with commuting
- Equipment didn't meet needs
- Programs didn't meet needs
- I moved from living on-campus to living off-campus
- The social environment did not meet my needs
- Other

What factors are contributing to your decision to not try the UBC recreation facilities?

- Time/Doesn't fit into schedule
- Cost

- Hours of operation
- Location is not convenient with commuting
- Programs offered don't meet needs
- Equipment doesn't meet needs
- The social environment did not meet my needs
- Other

How often do you go to a recreational facility?

- Less than once a week
- Once a week
- 2-3 times a week
- 4-5 times a week
- More than five times a week

Do you have an ongoing membership to a recreational facility or do you rely on drop ins?

- Membership
- Drop ins
- Other

Which activities do you partake in at your recreational facility? (select all that apply)

- Organized fitness classes
- Drop in sports
- Registered sport leagues (including intramurals)
- Weight room activities
- Swimming
- Ice skating
- Outdoor recreational activities
- Other

Which characteristics have influenced your recreational facility decisions the most in the past few years (please rank your choices).

Physical environment within the facility

Social environment within the facility

Cost of attending

Programming options

Location

Hours of operation

Other

Physical Environment questions

Please rate the importance of the following statements with 1= disagree, 2= slightly disagree, 3= neutral, 4= slightly agree, 5= agree

I take careful care in selecting recreational facilities based on the equipment.

1

2

3

4

5

I take careful care in selecting recreational facilities based on the programming available.

1

2

3

4

5

It is important to me that the facilities have clean maintained change rooms and bathrooms.



It is important to me that the recreational facility is accessible to my specific needs (universal change rooms, accessibility ramps, etc.).



If a recreational facility is not maintained in a way that I consider is satisfactory, I will not be inclined to attend it.



Social Environment Questions

Please rate the importance of the following statements with 1= disagree, 2= slightly disagree, 3= neutral, 4= slightly agree, 5= agree

It is important to me that the people using the exercise facility are peers (people of similar age).

It is important to me that the recreational facility I attend has programming, hours of operation, or spaces for women-only (trans-inclusive).

The friendliness of the staff or instructors is important to me when selecting and attending a recreational facility.

It is important to me that I feel confident and included in a recreational space.

The motivational environment within a recreational from other users is important when choosing a recreational facility.

The social environment is a factor that I take into consideration when choosing my recreational facility.

Individual Perceptions Questions

Please rate the importance of the following statements with 1= disagree, 2= slightly disagree, 3= neutral, 4= slightly agree, 5= agree

It is important to me that my recreational facility makes me feel confident while being physically active.



It is important to me that the physical environment has an option for me to exercise privately.



When choosing a recreational facility, I consider how comfortable I would feel while exercising at this facility.



I feel uncomfortable while being physically active and therefore it is important to me that the recreational facility offers private coaching or personal training services.



Instructors and staff have an impact on how comfortable I feel when I use the facility.



Accessibility Questions

Please rate the importance of the following statements with 1= disagree, 2= slightly disagree, 3= neutral, 4= slightly agree, 5= agree

The cost of the recreational facility is important to me when choosing a recreational facility.

The location is important to me when choosing a recreational facility.

The travel time to the recreational facility from my home is important to me when choosing a recreational facility.

The travel time to the recreational facility from campus is important to me when choosing a recreational facility.

I take the hours of operation into consideration when choosing a recreational facility.

Block 6

Considering the questions asked about physical environment, social environment, individual perceptions, and accessibility of a recreational facility, please rank the four categories in order of which factor you consider the MOST to LEAST when choosing a facility.

Physical Environment

Social Environment

Individual Perceptions

Accessibility

What factors prevent you from choosing UBC recreational facilities as your facility of choice?

With North Rec fitness center opening in the near future, do you have any suggestions that would make recreation facilities more accessible to you?

What factors would need to be in place for you to use Rec North as your recreational facility?

Do you have any additional comments?

Block 2

Thank you for completing the survey. The following page will redirect you to a new survey where you can enter the draw for prizes (2 lululemon yoga mats and 4 UBC Athletics Prize Packs).

You will need our group number to enter the draw - GROUP 23

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