UBC Social Ecological Economic Development Studies (SEEDS) Sustainability Program

Student Research Report

Redesigning the Bouldering Space in the BirdCoop Fitness Centre

Group Number: 6

Prepared by: Annie (Jing Yi) Li, Felicia Xie, Karissa Zack, Vivian Liu, Ryan Coyle

Partner Organization: UBC Recreation

University of British Columbia

Course Number: KIN 464

Course Instructor: Dr. Andrea Bundon (andrea.bundon@ubc.ca)

Themes: Health, Community, Wellbeing

April 12, 2024

Executive Summary

An extensive survey was conducted to explore the amount of interest in bouldering among the undergraduate students at UBC. Through the data collection, we aimed to gauge the amount of support for the expansion of the BirdCoop, identify potential areas for improvement, and determine preferred programming options and preferences regarding types of membership.

Our sample had an even distribution across gender, years of study, and faculty of study. The findings indicate that there is a strong interest in bouldering among UBC undergraduate students coupled with widespread support for the expansion. Participants expressed the need for a larger bouldering space, and better equipment such as better mats, ventilation, and color-coded holds instead of tape. They would also like to see a greater variety of difficulty in climbing routes, noting that there is a current lack of intermediate options. In terms of programming, participants favoured drop-in sessions, beginner lessons, and events like women's nights and competitions. Lastly, in terms of membership formats, participants favoured drop-in sessions or a semester-based bouldering-only membership. It is also worth noting that membership costs should be kept low as many participants reported cost as both a barrier to physical activity and a factor they prioritize when making physical activity decisions.

We propose that UBC Recreation expand the BirdCoop bouldering space to accommodate more climbers. Equipment enhancements such as mats that are secured to the ground, improved ventilation and colour-coded holds that provide clarity for route navigation. Flexible programming including drop-in sessions for casual climbers and students with busy schedules, as well as semester long bouldering specific membership for those who attend regularly. Include programming for beginners to introduce new climbers to the sport and intermediate and advanced lessons for climbers who want to improve their skills.

The proposed expansion of the BirdCoop bouldering space will not only meet the increased demands for bouldering in Vancouver but will also provide an accessible recreational outlet for UBC undergraduate students. By offering a diverse range of routes and programs, we aim to create a larger and more inclusive climbing community on campus

While this study is exploratory, future studies should be conducted to further examine the topics we explored in detail using a bigger sample size. Additionally, community input should be considered in the future to ensure that UBC's recreational needs are continuously understood and addressed.

Introduction and Literature Review

Introduction of Topic

Bouldering is a discipline of climbing where individuals climb without a rope to heights where a safe landing on soft pads is possible (Medernach, et al., 2015, p. 2286). This occurs in both the indoor and outdoor contexts. In an indoor bouldering gym, there are many routes composed of individually colour-coded holds, across a broad range of difficulties. This enables an accessible experience for individuals regardless of their climbing ability and allows for progression and challenge as the individual sees fit. The physical actions associated with climbing develop muscular strength, endurance, and flexibility through unique movements and positions. In addition, bouldering requires a great deal of cognitive activation; the challenges of a bouldering route require problem-solving skills and concentration. The successful completion of a route (climbing to the top) often elicits positive emotions such as a sense of accomplishment and happiness (Kulczycki et. al, 2014).

Literature Review

The Benefits of Bouldering

Bouldering facilities are spaces in which individuals can improve physical qualities such as strength, endurance, and flexibility while reducing the amount of risk they would experience relative to outdoor climbing (Schöffl & Kuepper, 2006). Furthermore, individuals are also able to gain valuable experiences such as “risk, challenge, cooperation, and positive social interactions in a controlled setting” (Wolf, 2007). An analysis of the meanings of indoor rock climbing facilities revealed that climbing gyms are spaces that foster camaraderie, skill development and physical fitness, among many other positive qualities. (Kulczycki et. al, 2014) In addition, indoor bouldering facilities provide an accessible means for individuals to experience a new sport that may otherwise be geographically challenging. Bouldering may also help individuals develop

important life skills in addition to the physical health benefits. According to psychologist Lisa Vigg, "The way people approach a boulder problem is very similar to the way people approach life outside of bouldering" (Chrobak, 2020), suggesting that the act of bouldering can provide individuals with the opportunity to practice skills broadly applicable in life.

Bouldering as a Mental Health Treatment

Bouldering psychotherapy (BPT), also known as Therapeutic Climbing, is an emerging treatment for depression, quickly gaining popularity due to its effectiveness and accessibility. BPT combines physical activity (bouldering) with psychotherapeutic methods within a therapy session; each session is "comprised [of] bouldering exercises, mindfulness exercises, psychoeducation, exchange between participants and transfer to daily life, body-related relaxation exercises, and free bouldering" (Kratzer et. al, 2021).

BPT has been shown to be of similar effectiveness as traditional cognitive behavioural therapy (CBT) (Luttenberger et. al, 2021). In addition, Luttenberg et. al (2021) found that the effectiveness of group BPT also matches the value of group CBT, suggesting that the effectiveness of this new treatment is comparable to traditional therapies across the board.

Karg et. al (2020) and Stelzer et. al (2018) found that BPT is more effective in treating depression compared to physical activity alone. Luttenberg et. al (2021) attribute the holistic approach of BPT, which offers opportunities for problem-solving, practicing novel functional behaviours, and exposure training, to its effectiveness. As such, BPT can be seen as augmenting the strategies within CBT by implementing such methods in physical practice. This is supported by findings in Kratzer et. al (2021), which demonstrate that self-efficacy improves significantly following BPT compared to a home-based exercise program.

Perceived Self-efficacy is defined as an individual's belief in their ability to overcome novel or difficult challenges and is an important predictor of general well-being, health, and resilience (Bandura, 1977). Traditional psychotherapy often focuses on increasing an individual's sense of self-efficacy because increased perceived self-efficacy is correlated with lower levels of depression and anxiety. This is consistent with the findings in (Luttenberger et. al, 2021), where participants experienced an increased sense of self-efficacy and self-esteem, and improved symptoms of anxiety after a 10-week BPT program. In Schwartz et. al (2019), the long-term effects of BPT are assessed to remain beneficial to participants during a 12-month follow-up, demonstrating that this is a promising new approach to improving mental health.

Bouldering for Physical Fitness

In the article, *Rock Climbing for Promoting Physical Activity in Youth*, Siegel and Fryer argue that bouldering not only improves mental health, but also requires both anaerobic and aerobic conditioning. "It is well known that rock climbing can increase both muscular strength and endurance, as well as have the potential to improve flexibility" (Siegel & Fryer, 2017). Additionally, because climbing involves energy expenditure similar to moderate-to-vigorous physical activity, it may be comparable to the level of exercise performed by amateur climbers (Siegel & Fryer, 2017). In comparison to other physical activities, bouldering requires an increased intensity resulting in increased heart rate (Siegel & Fryer, 2017). The improved blood flow may increase the bioavailability of signalling molecules such as nitric oxide, which helps improve arterial compliance, which ultimately results in improved metabolic and cardiac health (Siegel & Fryer, 2017).

Bouldering for Social and Personal Development

Furthermore, Siegal and Fryer argue that engaging in nontraditional physical activities, such as bouldering, may address important psychosocial correlates of physical activity. Physical activity in youth is correlated with several important factors, including self-efficacy and pleasure of physical education and exercise (Siegel & Fryer, 2017). Data also suggests that youth rock bouldering can improve youths' confidence, self-efficacy, and sense of self (Siegel & Fryer, 2017). Bouldering can also help improve an individual's personal development as climbers set personal goals that can improve technique, build confidence by overcoming challenging routes, and encourage individuals to problem-solve with creativity to overcome climbing problems.

Context of Study

UBC Recreation is considering expanding the current bouldering space in the BirdCoop and would like to explore whether bouldering is worth implementing as a recreational activity on campus in terms of interest, program delivery methods, layout of the bouldering space, and membership. As all University of British Columbia (UBC) students are allowed access to BirdCoop resources, there are over 58,000 students (University of British Columbia, n.d.) who could potentially access the bouldering space. UBC Recreation has given us this task to gain a better understanding of the effectiveness and necessity of a new bouldering space on campus.

Purpose of Study

While the benefits of bouldering are well-researched, little is known about bouldering in the context of university campus recreation. To our knowledge, there has not been a study conducted on the UBC Vancouver campus to address the questions posed by UBC Recreation. The purpose of our study was to examine bouldering as a recreational activity on the UBC

Vancouver campus by investigating the recreational needs and preferences of the undergraduate student population.

Our study aimed to provide UBC Recreation with insight into these areas while providing recommendations in consideration of findings from other relevant research studies. In our study, we aimed to illustrate the needs of the UBC community by surveying a diverse population. Through this study, we hope to create a bouldering space in the BirdCoop with programs that meet the recreational demands of UBC's undergraduate students on the Vancouver campus.

Research Questions

This research study aims to address the following research questions:

1. Based on the interest of UBC Vancouver's students, is bouldering a recreation activity that is worth implementing or are there alternative activities that students prefer?
2. How can we redesign the bouldering space to meet the needs of the student population, including ways to accommodate all abilities and fitness levels?
3. What forms of programming would be the most valuable for this bouldering space?
4. How should a membership system be implemented?

Methods

Data Collection

Inclusion Criteria

The target population of the study is undergraduate students currently studying at UBC Vancouver. The reason for selecting this cohort is that they are likely the primary users of this space. By understanding their preferences and needs we can make suggestions on ways to, as reported by the university, out of the 58,768 students on campus, 47,400 are undergraduates

(University of British Columbia, n.d.). Since 80.7% of the students studying at the Vancouver campus are undergraduates, it is vital that recreational services, like bouldering programs, are tailored to their needs. Our decision to only include undergraduate students allows us to collect the necessary data from a relatively smaller population (as opposed to everyone on the UBC campus) and analyze the data given the resources and time constraints of our study. Any participant who is currently an undergraduate student studying at UBC will be included in our study, anyone who does not meet this criteria will be excluded from the study sample.

Procedures

Responses were collected through a 26-question anonymous survey on UBC Qualtrics. The survey is a mixture of closed-ended questions in the form of multiple choice, selecting all that apply, and ranking the options provided. The survey also included four open-ended questions that participants were asked to respond to. The survey was accessed by participants through an anonymous link or by scanning an anonymous QR code. 127 responses were collected in total, surpassing our goal of 100 responses. 104 responses were included in our data analysis as they met the inclusion criteria of undergraduate students who are currently studying at UBC Vancouver. Incomplete responses and responses from participants who are not undergraduates and/or are not UBC Vancouver students were excluded.

Participants were recruited through social media accounts (of student clubs, UBC faculty social media accounts, and personal accounts of the group), word of mouth, posters around the Vancouver campus, and in-person recruitment at the AMS Student Nest. Emails containing a brief description of the study and the recruitment package were sent out to UBC faculties (Appendix A). The emails were sent to each faculty's social media coordinator. Only UBC Kinesiology had posted our poster and link to their Instagram story, other faculties either did not

respond to the email or said they could not post it. In addition, the recruitment package was also sent in social media chats of several UBC student-led clubs (Appendix A). Posters were posted around the UBC campus to recruit participants (for a list of poster locations, see Appendix A). Participants were recruited through word of mouth through social media by the group (See Appendix A for a sample Instagram story). Lastly, in-person recruitment at the AMS Nest took place on Tuesday, April 2nd, 2024 from 9:45 am to 1:30 pm. A member of the group approached students in the Nest, provided a summary of the study's purpose, and provided the option to scan the poster (Appendix A) QR code to fill out the survey. During all recruitment, potential participants were informed that their identity was anonymous and their participation was voluntary. Recruitment procedures followed the guidelines set by Bundon (2024a).

The survey opened on March 18th at 15:40 PST and closed on April 4th at 13:00 PST. All recruitment took place during the period the survey was open.

Consent Form

The consent form will be the landing page of our survey. The form is based on the template provided by Bundon (2024b) and can be found in Appendix A. The consent form includes the topic of our project, the project ID, the name of the principal investigator, the purpose of the project, study procedures, project outcomes, potential benefits of this class project, the risks involved, contact information about the study, and information regarding how to file a research ethics complaint. We also noted participation is voluntary and one can withdraw at any time and any data collected before withdrawal will be deleted. It is noted that by proceeding with the survey, participants are providing consent.

Survey Content

The survey was designed to collect data to answer our research questions. Questions 1 to 6 of the survey aimed to collect demographic data from the participants. This included whether they were an undergraduate UBC student, year of study, faculty of study, student status, gender, and medical conditions. These questions are based on UBC Recreation's questionnaire for registering participants in recreation programs (UBC Recreation, 2021) while also following the guidelines provided by the Office of Equity & Inclusion (Centre for Teaching, Learning and Technology, n.d.). Questions 7 and 8 examined participant behaviour through commute status and how often participants visited the BirdCoop or SRC gyms. Questions 9 to 19 examined participants' perceived abilities with questions regarding bouldering experience, interest in bouldering, barriers to physical activity, exercise preference, feelings after physical activity, perceived accessibility of resources on campus, factors they prioritize, motivations, and whether bouldering would help them become more physically active. Questions 20 to 26 focused on the BirdCoop space, with questions regarding support for the expansion of the bouldering space, types of programming, preferred membership format, preferred times, improvements for the space, other uses for the space, and any additional comments.

The majority of surveys included questions where the participant is asked to choose or rank from pre-provided choices, some questions also included the option to enter an unmentioned topic. For example, a text entry box is provided in addition to a select all that apply questions for factors one would consider when taking part in physical activity and for barriers. In some multiple-choice style questions, an "other" option is provided where the participant would enter text. Our goal was to ensure that, if desired, participants could provide additional comments. Thus, a mixture of close-ended and optional open-ended questions are included. We chose to include optional comment sections as this allows for suggestions of topics and themes

we may not have considered as our research is exploratory since little is known regarding the topic. For a copy of the survey, see Appendix C.

Data Analysis

For our study, a combination of descriptive statistics and qualitative descriptive analysis was used to analyze our collected data. We used descriptive statistics (The Organic Chem, 2019) to analyze close-ended questions. Specifically, the frequency in which each option was selected by participants was counted and calculated into a percentage. This includes questions regarding demographic data, information regarding residence location and commuter status, data on physical activity level, physical activity preference information, participants' priorities and barriers in physical activity, bouldering experience, and opinions on BirdCoop programming and membership. For open-ended questions, we used a qualitative descriptive analysis method to identify key themes presented in the long answer questions. Through an inductive coding method, we were able to identify shared themes across responses (Sandelowsk, 2010).

All data analysis was carried out on Microsoft Excel. Our research findings will be based on the conclusions we can make from descriptive statistics analysis. However, we will also supplement these findings using themes we identify from open-ended questions.

Sample Demographic Description

Out of the 127 responses, 104 met our inclusion criteria (Appendix B). The distribution of the year of participants is listed from highest to lowest: 3rd year (31.73%), 2nd year (26.92%), 4th-year students (22.12%) and 1st-year (11.54%), with the remainder of 5th-year and prefer not to disclose year making a combined 7.69%. The distribution across facilities is as follows: Science (24.04%), Arts (22.12%), Applied Science (17.31%), Kinesiology (15.38%), Commerce (11.54%), Forestry (4.81%), Education (1.92%), Pharmaceutical Science (1.92%), Land and

Food Systems (0.96%) (Appendix B). Of the 104 valid participants, 102 reported being full-time students (Appendix B). We had more females complete the survey than males with females totalling 60.58% and males totalling 36.54%, 2.88% self-identified as being non-binary or preferring not to disclose (Appendix B). Regarding health status, the majority (67.86%) of our participants reported no disabilities or ongoing medical conditions affecting their everyday functioning. While 12.59% stated having mental health conditions, 9.82% had neurological conditions such as ASD, traumatic brain injury, ADHD or a learning disability (Appendix B).

Results

Regarding the participants' behavior, 33.65% reported living on campus, while 20.19% commute an hour or longer and 19.23% commute 30-45 minutes to campus (Appendix B). In terms of gym usage in the BirdCoop or SRC gym, 37.50% stated they never go, 18.27% go 3 or more times a week, 14.42% report going to a different gym, and 10.58% go once a week (Appendix B). In the survey, we found that 30.96% of participants selected time as being a barrier to participating in exercise regularly. 26.40% stated that cost is a barrier and 20.30% chose facilities (Appendix B).

To gauge their perceived rate of accessibility of resources and facilities for physical activity on campus 54.81% found the accessibility was fair with only 0.96% rating it as excellent and 15.38% as poor. Additionally, 69.23% indicated that if there were more exercise opportunities such as bouldering on campus it would encourage them to engage in more physical exercise (Appendix B). When considering what factors influenced which activity to engage in, 43% prioritized cost followed by convenience and then what their peers are doing. Furthermore, over half (57.69%) of the surveyed participants preferred exercising with friends rather than alone (34.62%) and only 7.69% preferred exercising with a group or team (Appendix B).

Among the 104 responses received, 20.19% reported trying bouldering once, while 17.31% stated they had been bouldering a few times (Appendix B). Interestingly, 16.35% did not know what bouldering entails and 15.56% participated when they could. Notably, 80.76% of participants would be interested in bouldering. We found that the majority of people who would be interested in bouldering have either tried bouldering once or have been a few times. When asked whether they would be interested in adding bouldering as a means to their physical activity, 78.84% expressed a willingness to do so (Appendix B).

Among the participants, 91% would support the expansion of the bouldering space in the BirdCoop (Appendix B). When asked what types of programming they would like to see in the space, 36.36% wanted lessons catering to various skill levels and 31.27% preferred free climb (unstructured drop-in) sessions (Appendix B). For membership options, 38.46% favoured a bouldering-specific semester membership and 35.58% preferred a drop-in fee (Appendix B). Regarding usage times, 50.92% stated that they would most likely use the bouldering facility from 4 pm onwards, 30.77% from 12-4 pm and 9.62% from 6-9 am. In terms of expanding the bouldering facility, participants would like to see a better route setting with colour-coded routes, better mats and equipment, diverse climbing routes ranging in difficulty and better air circulation (Appendix B). If not a bouldering gym, individuals expressed their interest in expanding the current gym with more machines and free weights or a women's only gym. Alternatively, they suggested including a studio space for yoga or dance classes (Appendix B).

In addition, some respondents used the question for alternative developments to bouldering to reaffirm how strongly they supported a bouldering space, demonstrating the passionate user base that this expansion will draw in (Appendix B).

Some additional comments left by our participants included the demand for more climbing spaces at UBC (Appendix B). They stated that current options like the BirdCoop are very small, while larger bouldering gyms like the Hive are expensive. The aviary is limited in capacity and hours and outdoor climbing is not an option for those who are beginners. One participant noted that there is a lineup for the aviary an hour before it opens which serves as a testament to the demand for more climbing spaces. Many participants also stated that there are currently no affordable bouldering spaces in Vancouver.

Discussion

Bouldering is Worth Implementing

Almost three-quarters of students surveyed have tried bouldering at least once, with the majority seeing it as a vehicle which they believe will help increase their physical activity levels. This is supported by findings in Schöffl & Kuepper (2006) which describe the improvement in physical qualities such as strength, endurance, and flexibility from bouldering. In addition, this is an initiative that is likely to improve the mental health of students as suggested by Siegel & Fryer (2017). With immense support for the expansion of the BirdCoop bouldering space, along with the intention of participation, it is clear from the survey responses that the bouldering space is wanted, and needed by some individuals to achieve their desired physical activity levels. Therefore, investing in expanding the bouldering area can help accommodate this interest.

In addition, while some participants responded that they did not know what bouldering is or had no interest in bouldering; after a brief description of bouldering was provided, many reported being interested in learning more about bouldering. In addition, during recruitment, some participants expressed that they were not aware that UBC had a bouldering facility. This suggests that interest in bouldering exists and that it is vital to not only advertise the bouldering facility but also actively encourage participation, especially among those new to the sport.

Lastly, only two participants out of 104 reported wanting a free membership and although cost was one of the biggest barriers identified in our study, we believe that participants are willing to pay for membership.

Bigger and Better

While there was some support for the expansion of the space to a general gym or other health activity spaces, the overwhelming support for the need for the wall to be expanded to increase climbing capacity is the most prevalent result of the study. This solves the issue of the high number of individuals interested in bouldering relative to the small amount of space currently available, while also allowing for a greater diversity of route difficulty to accommodate different abilities and fitness levels. Currently, the bouldering cave contains routes that are not colour-coded (only marked by tape), and lack intermediate-level climbing opportunities. In addition, a common improvement request is for climbing walls that are higher, allowing for longer routes. Along with the desire for expansion, many users expressed a desire for colour-coded route settings, improved mats and equipment, and better air circulation. By addressing these concerns, the usage, safety and overall satisfaction of users can be significantly improved.

More Options More Freedom

Climbing is a growing activity; with interest increasing, many new people are joining the sport. This is confirmed by our results as there was strong support for beginner lessons suitable for those who are relatively new to the sport or experiencing bouldering for the first time. Having beginner lessons was a consistent theme that appeared across our study, with strong support for intermediate and advanced lessons, performance training, and competitions.

These results show how climbing is a popular physical activity among the students at UBC Vancouver. The need for free climbing programming was greatest by the majority and was favoured much more than the next most popular option. A schedule for the wall time focusing primarily on free-climb, with beginner lessons, and some performance training and competitions may be a logical solution to accommodate UBC students' needs.

In addition, respondents commented on the lack of organization and difficulty in gaining access to the current bouldering space due to long wait times. These issues stem from the size of the current facility, however, should remain a consideration when considering a larger facility that intends to draw even greater interest from the community. An example of a management strategy is a pre-registration platform for individuals with semesterly memberships. Not only will this help organize capacity during high volume times, it will also incentivize individuals to purchase a semesterly membership to reduce potential wait times associated with capacity.

Additionally, the space can be used for events to accommodate different groups of people. It was identified that women's events and queer-focused events gained interest, which would help inclusion in the sport. Bouldering is a sport that can improve confidence and self-efficacy (Siegel & Fryer, 2017), therefore introducing bouldering to minority communities can serve to empower individuals beyond the sport as well. This will also provide an easy opportunity for social interaction and community building both within the bouldering space and within the different communities using the space. Bouldering facilities are spaces that inherently foster camaraderie among other things, (Kulczycki et. al, 2014), so bouldering in itself may come across as an intimidating activity, and any attempt to reduce perceived barriers to entry could help to engage people who otherwise may not consider bouldering as part of their physical activity regime.

Low-Cost Membership With Options

Most participants stated that they prefer a bouldering-specific membership (per semester) or a pay-per-visit (drop-in fee), therefore providing both membership options may be worth implementing. A drop in fee option will also encourage more people to participate in bouldering as it is a lower commitment financially.

Membership fees should be kept as low as possible since the cost was the second biggest barrier to physical activity participation in our responses, with time being the first. In addition, cost was listed by the majority of participants as the first or second factor they consider the most when selecting physical activities. Since 38.46% of participants stated that they prefer a bouldering-specific membership (per semester) and 35.58% of participants stated they would prefer pay-per-visit (Drop-In Fee), providing membership options may be worth implementing. A bouldering-specific membership and a pay-per-visit will meet the preferences of most participants.

This is also a relevant consideration at a broader community level as there are currently no affordable bouldering spaces near UBC. Exploring options for making bouldering more accessible and affordable such as offering student discounts could help address this issue and improve engagement. It is worth looking into discount drop-in rates during lower facility usage times. Offering discounted rates will help incentivize more individuals to visit the facility, thus optimizing usage and increasing revenue during off-peak hours. In addition, organizing inexpensive opportunities for individuals to try bouldering, such as partnering with Move UBC or offering Bring a Friend for Free promotions may engage individuals who are interested but hesitant.

Limitations of the Study

This study saw the recruitment of 104 valid responses to the survey which met our goal, however, the recruitment fell short on some of the angles that we took. The poster with survey information was put up in multiple places across the UBC Vancouver campus, including the AMS Nest, and buildings like Life, Henry Angus, Klink, Scarfe, Chemistry, and Biology. Despite this, recruitment from posters directly did not make up the majority of recruitment. Additionally, social media was used as a main form for recruitment, through different faculty platforms, clubs, and personal social media. While this did garner some attention, it did not meet our expectations. To recover from this limitation of our previous efforts, in-person recruitment at the AMS Nest was implemented by approaching students and asking them to fill out our survey. This allowed us to reach our goal of surpassing 100 responses.

Another limitation of our study is our scope. Because we chose to focus exclusively on undergraduate students, some information and preferences remain unknown about other potential users of the space. Given that this space is likely to appeal to the community as well as students, demographic and preference information from non-UBC affiliated users may also be informative in providing recommendations regarding the expansion. In addition, it is also meaningful to consult potential users with physical disabilities to assess if there is an opportunity to make the space more inclusive.

Furthermore, our methodology limited us from gathering detailed information regarding user preference as the survey sought to balance information gathering with the time required from each respondent. In addition, our survey emphasized identifying topics worth exploring in future studies. Popular choices from close-ended questions should be studied in depth. From the qualitative data we did receive, it was clear that there was a depth of opinion and suggestion that could further be revealed through a focus group or interview setting.

Recommendations

1) BirdCoop Expansion

Expand the current BirdCoop bouldering space. This expansion should include more climbing walls, allowing for more available routes at any given time. These routes should include color-coded holds, and a diverse distribution of route difficulty to foster inclusion, progression, and performance all in the same space. In addition to this, it should allow for more people to use the climbing facilities.

2) Membership options

Implement a bouldering-specific, per-semester, membership format for students, with the option for pay-per-session passes as well for first-time users. Cost should remain as minimal as possible in order to ensure accessibility.

3) Student Input + Community

Engage UBC students and interested community members in the planning process to provide consultation on gym features, layout, and programming. The knowledge of both experienced users and beginners can be leveraged to provide a space and experience that is supportive of different levels of climbing.

A strong bouldering community can be created via social events, competitions, and community outreach events. Create opportunities for climbers to connect, exchange stories, and support each other's progress. Employ experienced community members for route setting and to provide instruction and supervision to climbers. In addition, relevant student clubs can be engaged to fortify community connection and increase accessibility.

4) Programming Considerations

The backbone of the bouldering programming should be unstructured drop-ins, similar to most other recreational facilities. Additional programming should include beginner lessons/orientation sessions, and community events as discussed in recommendation three.

Conclusion

This study was conducted to assess the recreational needs of UBC Vancouver's undergraduate student population and to inform UBC Recreation of whether the bouldering space in the BirdCoop should be expanded. Since the benefits of bouldering were well-established and no study had been conducted to examine the needs of UBC Vancouver students in terms of bouldering, this study was conducted to explore this area.

A survey was delivered to explore whether there was interest in bouldering, improvements that could be made to improve the space itself and access to the space, forms of preferred programming, and forms of preferred membership. Recruitment for participants took place through social media accounts of UBC faculties, student clubs, in-person recruitment, posters posted around campus, and through word of mouth. The survey was accessed anonymously by participants through a link or by scanning a QR code.

For close-ended questions, a quantitative analysis was carried out by calculating the frequency of each response option and its relative percentage to other responses. For open-ended quantitative responses, inductive coding was carried out to identify common themes across responses. Our sample had an even distribution across gender, years of study, and faculty study; representing the undergraduate population.

Out of the 104 responses, it was clear that there is strong interest in bouldering and support for the expansion among undergraduate students. Participants expressed the need for a larger bouldering space, better equipment (e.g., better mats, better ventilation, colour-coded

holds instead of tape), and more intermediate routes (as opposed to having only beginner and advanced routes). In terms of programming, drop-in sessions, beginner lessons, and events (e.g., women's night, competitions, etc…) were popular responses among participants. Lastly, in terms of membership formats, participants favoured a pay-per-session membership or a semester-based bouldering-only membership. It is also worth noting that membership costs should be kept low as many participants reported cost as both a barrier to physical activity and a factor they prioritize when making physical activity decisions.

Although some of our recruitment strategies fell short, we were able to gather 104 valid responses. However, the limitation of a relatively small sample size remains. In addition, our sample consisted of only undergraduate students due to the time and resource constraints of our project. Although undergraduate students make up the majority of those who use the campus space, future studies should examine other subpopulations as well.

Lastly, we recommend that UBC Recreation expand the BirdCoop bouldering space, update the current equipment, provide semester-based bouldering memberships and pay-per-session memberships at low costs, engage the community in bouldering and feedback, and provide drop-in programs in addition to beginner lessons and events. In conclusion, there is enormous support and interest in bouldering among undergraduate students at UBC. While this study is exploratory, future studies should be conducted to examine the topics we explored in detail and with a bigger sample size. Lastly, community input should be considered in the future to ensure that the recreational needs of UBC are continuously met and addressed.

References

Bandura A. (1977). Self-efficacy: toward a unifying theory of behavioral change. Psychol Rev. 84(2):191–215. https://doi.org/10.1037/0033-295X.84.2. 191.

Bundon, A. (2024a). KIN 464 Social Media and Poster Recruitment Template 2023 Term 2 v2. The School of Kinesiology. Retrieved February 28, 2024, from https://canvas.ubc.ca/courses/131563

Bundon, A. (2024b). Recruitment materials (Poster and Social Media) [KIN 464 Course Canvas Page]. Canvas. https://canvas.ubc.ca/courses/131563

Centre for Teaching, Learning and Technology. (n.d.). Equity and Inclusion un Data Collection: General guidelines on asking for demographic information. The University of British Columbia Equity & Inclusion Office. Retrieved February 8, 2024, from https://canvas.ubc.ca/courses/131563

Chobrak, U. (2020). Why Experts Are Exploring Climbing as a Form of Therapy. Outside. https://www.outsideonline.com/health/wellness/bouldering-psychotherapy/

Dorscht, L., Karg, N., Book, S. Graessel, E., Kornhumber, J., Luttenberger, K. (2019). A German climbing study on depression: a bouldering psychotherapeutic group intervention in outpatients compared with state-of-the-art cognitive behavioral group therapy and physical activation – study protocol for a multicentre randomized controlled trial. BMC Psychiatry, 19(154): 1-13. https://doi.org/10.1186/s12888-019-2140-5

Kulczycki, C., Hinch, T. (2014). “It’s a place to climb”: place meanings of indoor rock climbing facilities. Leisure/Loisir, 38(3): 271-293. https://doi.org/10.1080/14927713.2015.1043710

Luttenberger, K., Karg-Hefner, N., Berking, M., Kind, L., Weiss, M., Kornhuber, J. Dorscht, L. (2022), Bouldering psychotherapy is not inferior to cognitive behavioural therapy in the group treatment of depression: A randomized controlled trial. Br J Clin Psychol, 61: 465-493. https://doi.org/10.1111/bjc.12347

Luttenberger, K., Stelzer, EM., Först, S., Schopper, M., Kornhuber, J., Book, S., (2015). Indoor rock climbing (bouldering) as a new treatment for depression: study design of a waitlist-controlled randomized group pilot study and the first results. BMC Psychiatry, 15(201). https://doi.org/10.1186/s12888-015-0585-8

Medernach, J.P.J., Kleinöder, H., Lötzerich, H.H.H. (2015). Fingerboard in Competitive Bouldering: Training Effects on Grip Strength and Endurance. Journal of Strength and Conditioning Research 29(8):p 2286-2295, | DOI: 10.1519/JSC.0000000000000873

Sandelowski M. (2010). What's in a name? Qualitative description revisited. Research in nursing & health, 33(1), 77–84. https://doi.org/10.1002/nur.20362

Schwarz L., Dorscht L., Book S., Stelzer E.M., Kornhuber J., Luttenberger K., Graessel E, Hofner B. (2018). Bouldering psychotherapy reduces depressive symptoms even when general physical activity is controlled for: A randomized controlled trial. Heliyon, 4(3) https://www.sciencedirect.com/science/article/pii/S2405844017317784

Schwarz L., Dorscht L., Book S., Stelzer E.M., Kornhuber J., Luttenberger K. (2019). Long-term effects of bouldering psychotherapy on depression: benefits can be maintained across a 12-month follow-up. Heliyon.5(12):e02929. doi: 10.1016/j.heliyon.2019.e02929.

Siegel, S.R., & Fryer, S.M. (2017). Rock Climbing for Promoting Physical Activity in Youth. American Journal of Lifestyle Medicine, 11(3), 243-251.

The Organic Chem. (2019, January 4). Descriptive Statistics vs Inferential Statistics. [Video] Youtube. https://youtu.be/VHYOuWu9jQI?si=glTkcVAoQ2pai-LS

UBC News. (2018, August 22). UBC student housing facts and figures. The University of British Columbia. Retrieved February 8, 2024, from https://news.ubc.ca/2018/08/22/ubc-student-housing-facts-and-figures/

UBC Recreation. (2021, March 10). Demographic Questions. The University of British Columbia. Retrieved February 8, 2024, from https://canvas.ubc.ca/courses/131563

University of British Columbia. (n.d.). UBC Overview & Facts. The University of British Columbia. Retrieved February 8, 2024, from https://www.ubc.ca/about/facts.html

Appendix A

List of Clubs Recruitment Materials Was Sent To

UBC Varsity Outdoor Club

UBC Mountain Bike Club

AMS Artelier at UBC

AMS Taylor Swift Club at UBC

List of Faculties Recruitment Materials Was Sent To

Applied Science, Faculty of (via newsletter form and through email)

Arts, Faculty of (via request form)

Business, Sauder School of

Community and Regional Planning, School of

Extended Learning (via request form)

Forestry, Faculty of

Kinesiology, School of

Science, Faculty of

UBC Vantage College

Poster Locations

AMS Nest

UBC Life Building

Henry Angus

Klink

Neville Scarfe

Chemistry Building

Biology Building

Woodward Library

Hennings Building

Buchanan A and B

UBC School of Music Building

Food and Nutrition Building

Sample of what we posted to discord servers

Hey everyone!

My group and I are conducting a course-based research study looking at how to possibly expand and/or redesign the bouldering gym in the BirdCoop. We will share our findings and recommendations with UBC Rec, so your input is extremely valuable.

The survey is anonymous and takes ~ 3 min. Here's the link:

https://ubc.ca1.qualtrics.com/jfe/form/SV_byga4iZuAMO6Gfs

Thank you so much!

(Poster attached)

Recruitment Poster

Email

Good morning,

I hope this email finds you well.

My group and I (Group 6) are conducting a course-based research project under Dr. Andrea Bundon for KIN 464.

Our group is interested in exploring the possibilities of potentially expanding the bouldering space located in the BirdCoop. Our goal is to gather information from undergraduate students at UBC to understand their opinions on the potential expansion and the best way to redesign the bouldering space. Our findings will be presented to UBC Recreation.

Dr. Bundon is the principal investigator for this project, her email is andrea.bundon@ubc.ca.

Would it be possible for you to share our study poster and link on your social media platforms?

I have attached the recruitment poster to this email. Here is the survey link:

https://ubc.ca1.qualtrics.com/jfe/form/SV_byga4iZuAMO6Gfs

Please let me know if you have any questions or concerns.

Thank you so much for your help. We really appreciate it. Have a great day!

Sincerely,

Annie Li

(On behalf of the rest of Group 6: Felicia Xie, Karissa Zack, Ryan Coyle, & Vivian Liu.)

Sample of Instagram Story

Appendix B

- 104 valid responses

Participant Demographics

Q1: are you currently an undergraduate data:

- Yes: 100%

Q2: what year are you currently in:

Q2	Count of Q2	Count of Q2
Year 3	33	31.73%
Year 2	28	26.92%
Year 4	23	22.12%
Year 1	12	11.54%
Year 5 or more	7	6.73%
Prefer not to disclose	1	0.96%
Grand Total	**104**	**100.00%**

Q3: what faculty/school are you a part of?

Q3	Count of Q3	Count of Q3
Science	25	24.04%
Arts	23	22.12%
Applied Science	18	17.31%
Kinesiology	16	15.38%
Commerce	12	11.54%
Forestry	5	4.81%
Education	2	1.92%
Pharma, Science	2	1.92%
Land and Food Systems	1	0.96%

Grand Total	**104**	**100.00%**

Q4: what is your current student status?

Q4	Count of Q4
Full-time	102
Other	2
Grand Total	**104**

Q5: what gender do you identify as:

Q5	Count of Q5	Count of Q5
Woman	63	60.58%
Man	38	36.54%
Non-binary/Third gender/Queer	2	1.92%
Prefer not to disclose	1	0.96%
Grand Total	**104**	**100.00%**

Q6: Do you have any of the following disabilities or ongoing medical conditions that have affected your everyday functioning?

Q6	Count of Q6	Count of Q6
I don't have a disability or ongoing medical condition	76	67.86%
Mental Health Condition	14	12.50%
Neurological (learning disability, ASD, Traumatic Brain Injury, ADHD, etc.)	11	9.82%
Chronic Health Condition (Crohn's, HIV, etc.)	5	4.46%
Prefer not to disclose	3	2.68%
Chronic Migraines	1	0.89%
Blind/Visually impaired	1	0.89%

Deaf/Hard of Hearing	1	0.89%
Grand Total	**112**	**100.00%**
Q6	**Count of Q6**	**Count of Q6**

Participant Behavior

Q7: how far do you commute to campus?

Q7	Count of Q7	Count of Q7
I live on campus	35	33.65%
I commute an hour or longer to campus	21	20.19%
I commute 30-45 minutes to campus	20	19.23%
I commute around 20 minutes to campus	18	17.31%
I live just off campus (10 minute commute)	10	9.62%
Grand Total	**104**	**100.00%**

Q8: how often are you going to the gym in the birdcoop or SRC gym?

Q8	Count of Q8	Count of Q8
Never	39	37.50%
Three or more times a week	19	18.27%
I go to a different gym for physical activity	15	14.42%
Once a week	11	10.58%
Twice a week	10	9.62%
Once a month	10	9.62%
Grand Total	**104**	**100.00%**

Perceived Abilities

Q9: what best describes your experience with bouldering

Q9	Count of Q9	Count of Q9
I have tried bouldering once	21	20.19%
I have been bouldering a few times	18	17.31%
I do not know what bouldering is	17	16.35%
I go when I can	16	15.38%
I have no interest in bouldering	14	13.46%
I go 1-2 times a week	12	11.54%
I go 3-4 times a week	6	5.77%
Grand Total	**104**	**100.00%**

Q10: would you be interested in bouldering

Q10	Count of Q10
Yes	84
No	20
Grand Total	**104**

Q9 + Q10: how often someone goes bouldering in relations to how interested they are

Count of Q9	Q10		
Q9	Yes	No	Grand Total
I have tried bouldering once	17	4	21
I have been bouldering a few times	14	4	18
I do not know what bouldering is	11	6	17
I go when I can	15	1	16

I have no interest in bouldering	10	4	14
I go 1-2 times a week	11	1	12
I go 3-4 times a week	6		6
Grand Total	**84**	**20**	**104**

Q11 - Would you be interested in adding bouldering to your physical activity regiment or using bouldering as an activity to start being more physically active?

Q11	Count of Q11
Yes	82
No	22
Grand Total	**104**

Q12:What barriers prevent you from participating in physical exercise regularly?

Q12	Count of Q12	Count of Q12
Time	61	30.96%
Cost	52	26.40%
Facilities	40	20.30%
Fitness level	16	8.12%
I have no barriers	14	7.11%
Illness or Injury	13	6.60%
Fear	1	0.51%
Grand Total	**197**	**100.00%**

Q13: Do you prefer to exercise alone or with others?

Q13	Count of Q13	Count of Q13
With Friends	60	57.69%
Alone	36	34.62%

With a group and/or team	8	7.69%
Grand Total	**104**	**100.00%**

Q14: How do you feel after engaging in physical activity

Sore - 51
Happy - 79
Relaxed - 43
Energized - 53
Tired - 42
Other - 5

This is frequency count, out of a total max of 104 counts, each participant can only select each option once. Those who selected other said: Strong and healthy (both from 1 participant), focused, motivated, accomplished

Q15: How would you rate the accessibility of resources and facilities for physical activity on campus?

Q15	Count of Q15	Count of Q15
Fair	57	54.81%
Good	30	28.85%
Poor	16	15.38%
Excellent	1	0.96%
Grand Total	**104**	**100.00%**

Q16: What factors do you prioritize when deciding on which activity to engage in? Please rank in order of highest priority to lowest.

Q16_1	1st choice	2nd choice	3rd choice	4th choice	5th choice	6th choice
Cost	45	30	4	12	5	8
Convenience	19	40	14	7	6	18
Prior Experience	16	19	17	17	15	20

Knowledge of Activity	12	10	18	34	16	14
What friends are doing	8	4	27	22	25	18
If equipment is available	4	1	24	12	37	26
Grand Total	**104**	**104**	**104**	**104**	**104**	**104**

Q18: What motivates you or would motivate you to participate in bouldering as a physical activity? -247

Social Interaction = 81
Health Benefits = 76
Stress Relief = 63
Competition = 21
Other = 6 (Convenience, Because it's there, It is good exercise, I outdoor climb, so I boulder for practicing skills, the satisfaction you gain after sending a route, Doing cool stuff)

Q19: Would adding exercise opportunities, such as bouldering, on campus help you engage more in physical activity?

Q19	Count of Q19	Count of Q19
Yes	72	69.23%
Unsure	27	25.96%
No	5	4.81%
Grand Total	**104**	**100.00%**

Questions regarding expansion of BirdCoop

Q20: Do you support the expansion of the bouldering space in the birdcoop

Q20	Count of Q20

Yes	95
No	9
Grand Total	**104**

Q21: What types of programming would you like to see in space? Select all that apply

Field29	**Count of Field29**	**Count of Field29**
Free climb (Unstructured Drop-In)	86	31.27%
Beginner Lessons	68	24.73%
Events	39	14.18%
Intermediate/Advanced Lessons	32	11.64%
Performance Training	31	11.27%
Competitions	19	6.91%
Grand Total	**275**	**100.00%**

Q22: What is your preferred membership format?

Q22	**Count of Q22**	**Count of Q22**
Bouldering specific membership (Per semester)	40	38.46%
Pay per visit (Drop-In Fee)	37	35.58%
Facility access bundled with the gym membership at an increased cost	15	14.42%
Bouldering specific membership (Monthly)	9	8.65%
Free for students	2	1.92%
10 visit pass	1	0.96%
Grand Total	**104**	**100.00%**

Q23:During which hours of the day would you most likely use the bouldering facility?

Q23	Count of Q23	Count of Q23
4pm onwards	54	51.92%
12-4pm	32	30.77%
6-9am	10	9.62%
9am-12pm	8	7.69%
Grand Total	**104**	**100.00%**

Q24: What types of improvements would you like to see if the Birdcoop was renovated into a bouldering gym?

- Color code routes, don't just use tape
- “I find that now there’s some really easy boulders and a lot of harder ones but not many in the intermediate range”

Q24	Count of Q24
Larger Facility	19
Better Route Setting (clearer marked routes)	5
Better Mats and Equipment	4
Diverse climbing routes	4
Better Air Circulation	2
Rentals	1
Grand Total	**35**

Q25:If not a bouldering gym, what would you like to see the Bird-Coop space used for?

- Studio space = yoga, dance classes, “Additional open space for movement /activity(maybe just open gym floor or free weights, or studio space)”
- Gym expansion = Weightlifting, just expand to have more machines, women only gym, kid style jungle gym, “olympic weightlifting/barbells for crossfit style workout/ more bars”

Q25	Count of Q25
Gym Expansion	9
Studio Space	5

Top rope	3
Gymnastics	1
Food Court	1
Flight simulation room	1
Archery range	1
Grand Total	**21**

Q26: additional comments

- Climbing is a fantastic form of exercise but it can be extremely expensive to get into because current options like the bird coop are very small, the larger bouldering gym The Hive is very expensive, the Aviary is very limited in hours/capacity, and climbing outdoors is difficult without a car and as a beginner. Turning the birdcoop into a larger and more accessible climbing gym is a great idea and I am confident it would be highly used
- There is so much demand I live on campus for more climbing spaces. The fact that the line up for the aviary starts an hour before it is open is a testament to this. There are currently NO affordable bouldering places in Vancouver
- 4 of my friends (who did not climb) have started climbing in the last year without me or someone else forcing them too because of the aviary. In my experience climbing is growing fast, and given BC's popularity for the sport, UBC should prioritize the BirdCoop climbing area more than it does. Also it's always cramped in there which discourages me from going in all honesty
- The bird coop isn't big to begin with so there isn’t a lot of space to change things up. Renovation might impede other facilities like the upstairs gym and weight room in the birdcoop.

Appendix C

Default Question Block

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

Participant Consent Form: Redesigning the Bouldering Space in the BirdCoop Fitness Centre - Group 6
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 information from undergraduate students of UBC on how to best redesign the bouldering space in the BirdCoop. In regards to potential changes in programming, membership, and general interest in bouldering.

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.

Block 1

Are you currently an undergraduate student at UBC?

- ○ Yes
- ○ No

Block 3

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 6

Block 2

What year are you currently in?

- ○ Year 1
- ○ Year 2
- ○ Year 3
- ○ Year 4
- ○ Year 5 or more
- ○ Prefer not to disclose

What faculty/school are you a part of?

- ○ Applied Science
- ○ Science
- ○ Arts
- ○ Commerce
- ○ Education
- ○ Land and Food Systems
- ○ Kinesiology
- ○ Medicine
- ○ Law
- ○ Pharma, Science
- ○ Forestry
- ○ Economics
- ○ None
- ○ [ ] Other

What is your current student status?

- ○ Full-time
- ○ Part-time
- ○ Other

What gender do you identify as?

- ○ Woman
- ○ Man
- ○ Non-binary/Third gender/Queer
- ○ Two-spirit
- ○ Other
- ○ Prefer not to disclose

Do you have any of the following disabilities or ongoing medical conditions that have affected your everyday functioning?

- ☐ Physical disability
- ☐ Blind/Visually impaired
- ☐ Deaf/Hard of Hearing
- ☐ Mental Health Condition
- ☐ Neurological (learning disability, ASD, Traumatic Brain Injury, ADHD, etc.)
- ☐ Chronic Health Condition (Crohn's, HIV, etc.)
- ☐ [ ] Other, please specify:
- ☐ I don't have a disability or ongoing medical condition
- ☐ Prefer not to disclose

How far do you commute to campus?

- ○ I live on campus
- ○ I live just off of campus (10 minute commute)
- ○ I commute around 20 minutes to campus
- ○ I commute 30-45 minutes to campus
- ○ I commute an hour or longer to campus

How often do you visit the BirdCoop or SRC gym

- ○ Never
- ○ Once a month
- ○ Once a week
- ○ Twice a week
- ○ Three or more times a week
- ○ I go to a different gym for physical activity

What best describes your experience with bouldering?

- ○ I do not know what bouldering is
- ○ I have tried bouldering once
- ○ I have been bouldering a few times
- ○ I go when I can
- ○ I go 1-2 times a week
- ○ I go 3-4 times a week
- ○ I go more than 5 times a week
- ○ I have no interest in bouldering

Bouldering is the sport of rock climbing reduced to its most basic form. Your task is to use balance, technique, strength, and mental toughness to climb short yet challenging bouldering "problems" (a route, or series of movements) without the use of ropes or harness and just with climbing shoes and a bag chalk over safety mats.

Would you be interested in learning more about bouldering?

- ○ Yes
- ○ No

Would you be interested in adding bouldering to your physical activity regiment or using bouldering as an activity to start being more physically active?

- ○ Yes
- ○ No

What barriers prevent you from participating in physical

exercise regularly?

- [ ] Cost
- [ ] Facilities
- [ ] Illness or Injury
- [ ] Fitness level
- [ ] Time
- [ ] I have no barriers
- [ ] Other

Do you prefer to exercise alone or with others?

- ○ Alone
- ○ With Friends
- ○ With a group and/or team

How do you feel after engaging in physical activity?

- [ ] Sore
- [ ] Tired
- [ ] Happy
- [ ] Relaxed
- [ ] Energized
- [ ] Other

How would you rate the accessibility of resources and facilities for physical activity on campus?

- ○ Poor
- ○ Fair
- ○ Good
- ○ Excellent

What factors do you prioritize when deciding on which activity to engage in? Please rank in order of highest priority to lowest.

- Cost
- Convenience
- Prior Experience
- Knowledge of the activity
- What friends are doing
- If equipment is available

Are there any other factors or barriers that affect your physical activity selection?

What motivates you or would motivate you to participate in bouldering as a physical activity?

- [ ] Competition
- [ ] Social Interaction
- [ ] Stress Relief
- [ ] Health Benefits
- [ ] Other

Would adding exercise opportunities, such as bouldering, on campus help you engage more in physical activity?

- ○ Yes
- ○ Unsure
- ○ No

Block 2

The following questions pertain specifically to the operations of a larger bouldering facility in the Birdcoop. There is a proposition for the current bouldering cave in the Birdcoop to be expanded to a larger portion of the current Birdcoop gym area, as a new fitness center will be opening in the new UBC Recreation building. These questions are optional, but they are an opportunity to share your thoughts and suggestions for what you would like to see if a larger bouldering facility is installed.

Do you support the idea of an expansion of the bouldering space in the BirdCoop?

- ○ Yes
- ○ No

What types of programing would you like to see in the space? Select all that apply

- ☐ Free climb (Unstructured Drop-In)
- ☐ Beginner Lessons
- ☐ Competitions
- ☐ Intermediate/Advanced Lessons
- ☐ Performance Training

- [ ] Events
- [ ] Other

What is your preferred membership format?

- ○ Pay per visit (Drop-In Fee)
- ○ Bouldering specific membership (Monthly)
- ○ Bouldering specific membership (Per semester)
- ○ Facility access bundled with the gym membership at an increased cost
- ○ Other

During which hours of the day would you most likely use the bouldering facility?

- ○ 6-9am
- ○ 9am-12pm
- ○ 12-4pm
- ○ 4pm onwards

What types of improvements would you like to see if the Birdcoop was renovated into a bouldering gym?

If not a bouldering gym, what would you like to see the Bird-Coop space used for?

If you have any additional questions or insights please comment below.