

UBC Social Ecological Economic Development Studies (SEEDS) Sustainability Program

Student Research Report

Improving the Awareness of UBC Recreation

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Executive Summary

The title of this project is, “Improving the Awareness of UBC Recreation”. The purpose of the assignment was to develop several new methods for a specific campus group that may be most effective in improving UBC Recreation awareness. Research on current literature was completed to gain background knowledge on the chosen population; first year female students enrolled in the engineering program at UBC. This population was chosen because studies have shown that their group would benefit tremendously from being more aware about recreational opportunities on campus.

The associated health benefits of physical activity for this population and the importance of creating awareness surrounding recreational opportunities for engaging in physical activity were also looked into. The literature review explained how engineering students have been found to experience significantly greater academic workloads in comparison to students from other programs. Their busy schedule is associated with increased levels of stress and anxiety. Multiple studies show that mental health can be improved by the participation in physical activity, ultimately allowing them to better cope with their stress. Furthermore, effective strategies for promoting recreational programs in universities/colleges were discussed. Interview questions were then developed with the focus being on increasing awareness of UBC Recreation. With these questions, semi-structured interviews were conducted and the population’s current awareness of UBC Recreation opportunities was discovered. Based on the recurring themes from the interviews, three recommendations on how to increase awareness for UBC Recreation were devised: “Social Media Platforms for Specific UBC Recreation Programs”, “Regular Email Updates” and “Guest UBC REC Speakers”.

After this information was analyzed, a survey was developed consisting of a ranking system, in which the 3 strategies were judged based on how well each could potentially improve an individual's awareness of UBC Recreation . This survey was distributed across 50 first year female engineering students that were found on the “Official UBC Engineering First Years 2017-2018” Facebook group and contacted via Facebook Messenger. These students ranked the developed methods from most to least effective. After this was completed, the data was then analyzed and led to several implications. First, the most effective method for improving the awareness of UBC Recreation for first year female engineering students is through having specific social media pages for each UBC Recreation program. The second highest ranked method was through receiving email updates about UBC Recreation opportunities. The method that was perceived to be least effective was UBC Recreation representatives coming to classes to speak about their programs and the health benefits associated with increased campus recreation focus.

With these findings UBC Recreation now has the opportunity to implement the recommended strategies. The awareness of recreation programs on campus may then be increased and these students may be more likely to participate as well. This can inadvertently improve mental health, and develop lifelong healthy behaviours which previous authors have found to be associated with increased campus recreation focus. The findings of this study provide insight on further research that can be done on which programs are most effective for different populations.

Introduction

Based on the current literature, there are numerous benefits associated with involvement in campus recreation programs such as: smoother high school to university transition, increased performance in academia, increased mental and physical health, lower levels of stress and anxiety, and an increased campus community and social interaction (Aspinall, Mavros, Coyne, & Roe, 2013; Andre, Williams, Schwartz & Bullard, 2017; Clark & Anderson, 2011). Limitations in campus recreation programs are seen when the campus community is not aware of the current recreation programs that are being offered (Clark & Anderson, 2011). To address this gap, student interviews were utilized to discover the best methods for increasing awareness of UBC recreation programs that are offered. This project explored how to increase awareness of campus recreation programs for first year female students enrolled in the engineering program at UBC. This was done by analyzing the data collected from this project to develop several recommendations of promoting awareness of UBC Recreation programs and classes offered to the campus. The contribution of this work will offer information on how to improve awareness for UBC Recreation programming, with the residual effect of improving the health and well-being of students at UBC overall.

Literature Review

Awareness of campus recreation opportunities is the fundamental concern this project aims to address, as awareness and participation rates of campus recreation are positively correlated (Clark & Anderson, 2011). This project was guided by the works of Bayne and Cianfrone (2013), which emphasized the use of marketing when raising awareness for campus recreation events. The study found participants to have high usage rates of Facebook, which led them to conclude that keeping an up to date Facebook page is beneficial for increasing recreation participation (Bayne & Cianfrone, 2013). Bayne and Cianfrone (2013) also suggested that recreation staff could use social media to see if students would potentially attend a recreation event by creating polls. This is beneficial in determining whether or not to take the time and resources towards the development of a recreational event before it has begun, while improving awareness of recreational opportunities altogether (Bayne & Cianfrone, 2013).

In addition, based on the high course workload of engineering programs, first year students tend to have increased levels of stress and anxiety when transitioning from high school to university (Maharaj, Blair, & Chin Yuen Kee, 2018). Numerous studies show physical activity improves mental health, including dealing with stress, which is why creating awareness for campus recreation to this population would have a great impact (Theodoratou et al., 2016). Moreover, a thesis conducted by Gibson (2013), found that not only did increased focus on campus recreation improve student retention rates, but it “was [also] used as a tool to help create long-term healthy behaviors” (p. 8). The thesis conducted by Gibson (2013) guided the purpose of this project by providing the opportunity for future research regarding long term benefits of campus recreation awareness.

Furthermore, a quantitative study with a sample of 301 undergraduate students found the greatest benefits of campus recreation programs to be reported from first year college students and all year female students (Sturts, & Ross, 2017). Sturts and Ross (2017) found that these

benefits include increased learning, development, and personal relationship building. Limitations for both studies would be the use of convenience samples. More research should be done identifying gaps such as preferred recreation programs, most effective advertising methods, and the rate at which academic success can be improved with campus recreation engagement (Hardy, Carson, Hellman, & Garrett, 2011). Based on the current literature, it would be beneficial to determine the most effective and efficient strategies for promoting campus recreation for first year female engineering students as there are numerous benefits for all university students at a physical, mental, and social level (Aspinal et al., 2013; Andre et al., 2017; Clark & Anderson, 2011; Sturts & Ross, 2017).

Methods

Population

The population that we have chosen are first year female students that are enrolled in the engineering program at UBC and are within an age range of 17 to 21. By choosing first year students, it is assumed that they are less aware of UBC Recreation opportunities as they are relatively new members on campus compared to their upper year peers. The specification for only engineering students to be included in the study was due to the fact that engineering students face a relatively large workload in comparison to other academic disciplines (Dee, 2007). As mentioned previously in the literature review, the transition to a heavier course load compared to high school often overwhelms first year students and leads to increased levels of stress and anxiety (Maharaj et al., 2018). Therefore, due to the busier schedule for engineering students, their time management towards recreational activities may be affected. Engineering students were also chosen because Mikkonen and Raphael (2010) state that education is a social determinant of health, and by choosing individuals in the same program, they are likely to have similar perceptions surrounding physical activity. These are valid reasons to be less aware of UBC Recreation opportunities and why a population of first year engineering students have been chosen.

In addition, the justification for the population being 17 to 21 year old females is that gender and age are also social determinants of health (Mikkonen & Raphael, 2010). Buckworth and Nigg (2004) found that the age of females was negatively correlated with engagement in physical activity, while the age of males was positively correlated with physical activity. Therefore, having restrictions on age and gender for the study ensured that the differences in their patterns of engagement in physical activity were minimized. Because of this difference in physical activity across age and gender, it was assumed that the chosen population would have similar awareness of UBC Recreation programs in comparison to groups with all ages and genders. Furthermore, when Buckworth and Nigg (2014) analyzed the effect of gender on physical activity, they found that in general, men were more physically active than women. This suggests that males are more likely to be aware of physical activity opportunities in the form of UBC Recreation compared to females. This is why the population chosen included the restrictions on age and gender.

The study's population is shown to be one that benefits tremendously from physical activity as it is well established in literature that physical activity improves mental health,

allowing them to effectively cope with the heavy course load as an engineering student (Theodoratou et al. 2016). Also, Levandoski, Pilatti and Zannin (2016) showed that regular physical activity aids in reducing risk factors and enhancing the quality of life especially among engineering students. For this reason, the female engineering student population would greatly benefit from increased awareness of campus recreation, as it would help manage stress and anxiety while indirectly boosting numerous other health functions (Theodoratou et al. 2016).

Procedure

In regards to the data collection process, Doody and Noonan (2013) showed that semi-structured interviews are the most frequently used type of interview when conducting qualitative studies. These kinds of interviews have a set of predetermined and open-ended questions, that allow for free talk and exploration between the interviewer and interviewee (Doody & Noonan, 2013). This leads the interview into becoming more of a conversation due to its flexible nature. New perspectives can also be discovered and discussed rather than having restrictions on what can be said like in structured interviews. During semi-structured interviews, the order and wording of questions may be altered and additional relevant topics can be added in order to gain more in-depth knowledge about the participants experience with the overarching topic (Doody & Noonan, 2013). This method was the best fit for this project because when asking semi-structured questions to the interviewees, it helped guide the conversation and reach a better understanding of their thoughts about UBC Recreation awareness.

The methods in how to carry out these semi-structured interviews effectively are also shown by Galetta and Cross (2013). They suggest that the use of the researcher as an instrument is essential to the interview process. This means that the interviewer must be able to pick up on any subtle hints that the participants give off during the conversation (Galetta & Cross, 2013). They also need to be able to prompt the participant by using additional questions, rephrasing words, and making appropriate changes according to the nature of the conversation (Galetta & Cross, 2013). By doing this, more detailed information can be retrieved and the interviewer can gain a deeper understanding of what the point the participant is trying to get across (Galetta & Cross, 2013).

Based on the research done by Doody and Noonan (2013), and Galetta and Cross (2013), it was decided that the data collection for this project would consist of semi-structured qualitative interviews. Interviews were then conducted with eight first year female engineering UBC students using several open-ended questions about UBC recreational programs and different forms of communication methods (refer to Appendix A). These interviews were 15 to 20 minutes long and the responses helped give information on how aware students were about UBC recreational programs and what communication channels were administered into gaining this knowledge. Furthermore, recommendations from students were taken in on how to improve the awareness of UBC Recreation programs.

The interviews for this project were conducted on campus throughout the school week. Recruiting potential participants for the interviews was done by visiting buildings which hold first year engineering classes and letting people know about the study. To entice participants, candy bars were given to those who were willing to be an interviewee. Recruitment was also

done by messaging first year female students in the “Official UBC Engineering First Years 2017-2018” Facebook group on Facebook Messenger and asking them if they would like to participate. All interviewees received an informed consent form where they agreed to have their interview sessions recorded (refer to Appendix O-R). Participants were ensured of their privacy and confidentiality in that their identity will remain anonymous. The entire data collection process was conducted in an ethical manner as all interviewers have TCPS 2 certificates (refer to Appendix A).

With the knowledge gained from the interview process, three methods of how to increase UBC Recreation awareness were devised. A ranking survey was then created in which participants ranked the three methods from most to least effective. This quick survey was given out to 50 first year female engineering students at UBC. These students were again found using the “Official UBC Engineering First Years 2017-2018” group on Facebook. They were messaged through Facebook Messenger and asked to rank the three methods in order from most to least effective. It was also mentioned to these students that by ranking the methods, they are voluntarily giving informed consent for their ranking to be used as part of our data collection process. After the survey data was collected, each method was assigned a point from one to three based on its ranking by the participants. The method that was ranked most effective was given three points, the second most effective method was given two points and so on and so forth for each of the 50 distributed ranking surveys. By graphing this data, it gave a clear visual representation on which methods for increasing awareness was resonated most with first year female engineering students at UBC.

Findings

We conducted 8 semi-structured interviews with first year female students enrolled in the engineering program at UBC. From those interviews, common themes emerged in regards to the most effective awareness strategies in promoting UBC Recreation. The first common theme among the interviews came when asking which social media outlet was used most; the most popular answer was Facebook or Instagram. One interviewee had this to say, “No, I don’t check the social media pages for UBC Rec, however I have seen it pop up on my feeds before. Or, some people that are apart of programs within UBC Rec have tagged their social media page”, (Anonymous, personal communication, March 5, 2018; refer to Appendix E). This led us to believe that the use of social media for promoting UBC Recreation resonates more with this specific campus population.

Another common theme that consistently showed from the interviews was the method in which people preferred to be updated on future campus recreation opportunities. One interviewee stated, “I have it set so my UBC emails come to my personal email, and a lot of my friends have it the same way so they do not miss important information. If UBC Recreation sent emails to me about future recreation program opportunities, I would definitely feel more aware and there is a better chance I would participate”, (Anonymous, personal communication, March 5, 2018, refer to Appendix D).

Few of the interviewees also suggested making short announcements before each lecture had begun. One interviewee went on to say,

“In class, it seems like we are always educated on abroad programs, or science opportunities, but I think UBC Rec should be addressed more in class as well to enhance the involvement of students. So, hearing more about it through a quick minute before class starts would be nice”, (Anonymous, personal communication, March 6, 2018; refer to Appendix M).

Lastly, another noteworthy theme that emerged from the interviews was having multiple platforms to broadcast the different programs offered by UBC Recreation. One interviewee went on to say,

“I check different social media platforms for different news. I follow ESPN for my sports news, I follow New York Times for news on politics and pop culture, so UBC Recreation would benefit if they had pages that promoted basketball only, or soccer only, etc. The more narrow the better” (Anonymous, personal communication, March 7, 2018; refer to Appendix M).

Based on the recurring themes from the interviews, we surveyed 50 first year female UBC engineering students with a ranking survey. The three awareness strategies that were ranked included: having specific social media outlets for different UBC Recreation programs, giving email updates for different UBC Recreation programs that interest students and finally, having UBC Recreation staff/volunteers talk in front of the class before a lecture. With these strategies, three titles were given respectively:

1. Social Media Platforms for Specific UBC Recreation Programs
2. Regular Email Updates
3. Guest UBC REC Speakers

For this ranking survey, the most effective perceived awareness strategy received three points, the second most effective received two points, and the least effective received one point (refer to Figure 1). Of the 50 participants, 24 of them chose “Social Media Platforms for Specific UBC Recreation Programs” as their top strategy, 20 chose it as their second best ranked strategy and 6 people chose it as their least effective strategy. 15 participants had “Regular Email Updates” as their top strategy, 16 had it as their second ranked strategy and 19 had it as their least effective strategy. 11 participants chose “Guest UBC REC Speakers” as their top ranked strategy, 14 chose it as their second ranked strategy and 25 chose it as their least effective strategy.

After totaling the points, the most effective perceived strategy to promote awareness of UBC Recreation programs was “Social Media Platforms for Specific UBC Recreation Programs” with 118 points. The second most effective perceived strategy to promote awareness of UBC Recreation programs was “Regular Email Updates”, which had 96 points. Lastly, the least effective perceived strategy to promote awareness of UBC Recreation programs was the “Guest UBC REC Speakers” method, which had 86 points. Therefore, in order from most to least effective methods, the strategies were: “Social Media Platforms for Specific UBC Recreation

Programs”, “Regular Email Updates”, “Guest UBC REC Speakers”, respectively (refer to Figure 2).

	Social Media Platforms for Specific UBC Recreation Programs: Having specific social media outlets for different UBC Recreation programs	Regular Email Updates: Giving email updates for different UBC Recreation programs that interest students	Guest UBC REC Speakers: Having UBC Recreation staff/volunteers talk in front of the class before a lecture
Most Effective (3 points)	72 points	45 points	33 points
Second Most Effective (2 points)	40 points	32 points	28 points
Least Effective (1 point)	6 points	19 points	25 points
Total points	118	96	86

Figure 1: Table Illustrating the Points Awarded to Each Strategy



Figure 2: A Pie Chart Showing the Perceived Effectiveness for Each Strategy

Discussion

Implications

The overall goal of this project was to develop several new strategies for increasing the awareness of UBC Recreation. Based on the findings of this study, it can be suggested that the three methods that were devised can have a positive impact if they were to be implemented at UBC. Perhaps if UBC Recreation pursues the strategy of having specific social media platforms

for different programs (e.g. aquatics, intramurals, tennis, fitness, or rowing, etc.), a greater amount of students from this population may be aware of UBC Recreation opportunities that best fit their interests. Furthermore, from several of the interviews, it was commonly agreed upon that being more aware of such opportunities would likely incline them to join recreation programs than if they were unaware. This supports the research done by Clark and Anderson (2011), as they state that recreation awareness was positively correlated with recreation participation. The research done on current literature has also explained the associated health benefits of increased focus on campus recreation. This includes increased mental health, as well as student retention, and creating long term healthy behaviours (Theodoratou et al., 2016; Gibson, 2013).

Further research can also be done on to find out if there is a statistical significant difference between these methods in its effectiveness for different populations such as males or older aged individuals. The knowledge gained from such research may provide insight on what UBC Recreation needs to pool their resources towards for increasing awareness among students. This could then result in providing more communication channels for multiple populations rather than the restricted population included in this study. With an increase in recreation awareness and focus, participation is likely to increase as well. As previous research has claimed, the health benefits of recreational activities can have a positive impact on the mental and physical well-being of students.

Limitations

Several challenges occurred when carrying out the study, mainly during the data collection process. One problem was finding students that fit the population description. To address this challenge, interviewers went to multiple buildings around campus that hold first year engineering classes during busier hours of the day to approach possible participants. Interviewers also messaged females that were part of the “Official UBC Engineering First Years 2017-2018” group on Facebook. After finding the specific population for our study, it was also a challenge to make sure they would be willing to participate in a 15-20 minute interview. Therefore, an incentive in the form of a candy bar was given to those who participated in order to entice them to take part in the study.

Another challenge is the effect of living on campus - a confounding variable present in this study. As location of residence was not part of any of the restrictions when choosing participants, this may have caused some differences in the data collection process. Students who live on campus or near UBC are more likely be aware of UBC Recreation programs due to being on campus more often than a commuting student. To mitigate for this, the population was made as specific as possible in other aspects such as gender, age, and academic focus.

Furthermore, the small sample size was also a limitation to the implications of the findings. The problem with having a small sample size is that it “has a reduced chance of detecting a true effect” (Button et al., 2013, p. 365). According to this, the responses that were recorded from the interviews with eight participants may not necessarily reflect what a larger sample size of first year female engineering students at UBC might say. To mitigate for this limitation, the quick ranking survey was created and given to 50 first year female engineering

students at UBC in order to increase the sample size when determining what strategies were perceived to be most effective in promoting UBC Recreation awareness.

As data collection only came from females, this was also another limitation to the implications of the results in this study. With the recommendations devised from this study on how to increase awareness for UBC Recreation, there will be an uncertainty as to whether these methods are perceived to be effective to the male population as well. As shown by the findings of Buckworth and Nigg (2014), males are more physically active than women, thus they could have a different perception surrounding awareness of UBC Recreation programming. For example, Buckworth and Nigg (2014) showed that males spend more time on computers than females. This could imply that males are more susceptible to advertisements on computers such as social media or websites. To overcome this challenge, we implicate that further studies must be done to determine whether the recommendations that were devised from this study that were perceived to be effective by first year female engineering students at UBC also remain effective for their male counterparts.

Recommendations

Social Media Platforms for Specific UBC Recreation Programs

This strategy includes having specific social media outlets for different UBC Recreation programs. This was the top ranked strategy based on the ranking survey that was completed by 50 first year female engineering students at UBC. As shown in the literature review of this study, research from Bayne and Cianfrone (2013) has shown that the use of social media platforms is vital in the promotion of recreational events. For example, Facebook is a network where people can be constantly updated on any important information. Facebook is also useful for seeing whether people are willing to attend any special upcoming events for UBC Recreation through the use of polls, and whether their organization should put the time, effort, and resources into making the event happen. Furthermore, a majority of the interviewed students were shown to report heavy usage rates with social media. One Interviewee also mentioned using different media platforms for keeping up with different news. Therefore, by having a UBC Recreation page for each specific program, it may resonate to the specific needs and wants of different individuals. Thus, different social networking platforms for different recreational programs may be more effective in increasing awareness compared to a general one for all of UBC Recreation.

Regular Email Updates

This method includes giving consistent email updates for different UBC Recreation programs that interests students. This could be implemented at UBC by promoting an email subscription on the UBC Recreation website under a specific program. For example, if a student were to be interested in the UBC Aquatics program, they can sign up for an email subscription for UBC Aquatics and receive regular email updates on their specific classes, drop-in dates and times, or events that they may hold. This way, the email updates are targeted towards individuals interests and consistently meets their needs, keeping them informed and in the loop. For example, an email subscription for UBC Intramurals could send out email reminders of registration deadlines to sign up for a UBC Intramurals team. Also, based on the interviews, it

was shown that students are checking their emails regularly on their smartphones as professors at UBC are sending out email updates for their classes. Therefore, by using this communication channel that is regularly viewed by students, it may be a very useful recommendation in increasing the awareness for UBC Recreation.

Guest UBC REC Speakers

This method refers to having UBC Recreation representatives come and speak to classes before a lecture begins. These speakers should not only speak about the programs that they offer, but they should also mention the associated health benefits of increased campus recreation awareness. For example, the conclusions of the research by Theodoratou et al. (2000) signify the improved mental health seen with engagement in physical activity. Furthermore, Gibson (2013) stated that increased focus on campus recreation helped students to develop long term healthy behaviours. From the large levels of stress and anxiety that is a byproduct of the engineering program's heavy course load, an improvement in the focus of campus recreation programs is likely to aid in the management of these stressors (Maharaj et al., 2018). By having the students understand the health benefits of recreational activities, they may be more inclined to make the choice themselves to follow up and be more aware of how to join UBC Recreation programs. Therefore, implementing this strategy may still be effective in increasing awareness for UBC Recreation even though it was the voted last, and additional research can be done on what information should be talked about during these presentations.

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