

UBC Social Ecological Economic Development Studies (SEEDS) Sustainability Program

Student Research Report

Increasing Universal Change Room Usage

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Increasing Universal Change Room Usage

Kinesiology 464: Health
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Section 001

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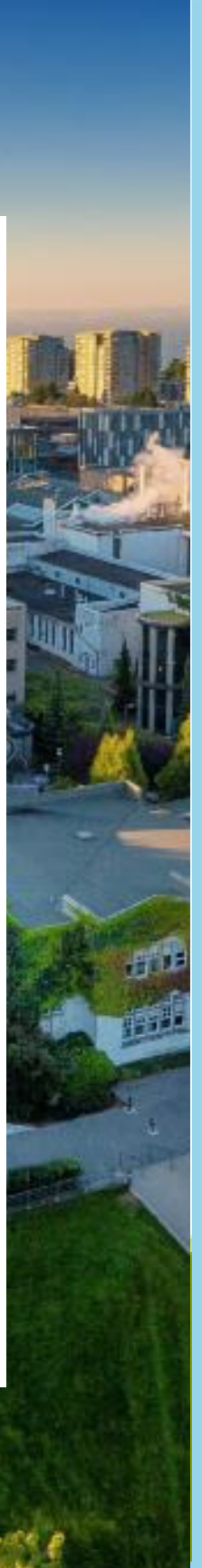


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Executive Summary

“Increasing Universal Change Room (UC) Usage,” is a project carried out by students of the Kinesiology 464: Health Promotion and Physical Activity, with the goal of promoting the universal change room to all ARC users and to increase the patronage of the communal facility. This project is designed by the Kinesiology students at the University of British Columbia, with the supervision of instructor, Negin Riazi, and teaching assistants, Matthew Fagan, Thalia Otamendi, and Clint Lemkus. In this project, the researchers conducted a mix method methodology to patrons of The ARC at the University of British Columbia - Vancouver Campus (UBC - Vancouver) in order to gain insight on how to improve one’s experience with regards to the UC. During the mentioned survey, the participants were asked about their perception with regards to their attitudes towards the UC, specifically to The ARC at UBC - Vancouver. The follow research paper is based on the findings and analysis done on twelve anonymous users of The ARC facility at the University of British Columbia.

The main findings of this project are that there was a difference in the genders that would use the UC. Based on our findings, most males have used the UC multiple times compared to females. Also, males were generally more comfortable entering the UC compared to females. These findings suggests that males are more likely to utilize the UC due to comfortability while females are less likely to utilize the UC due to possible worries about safety. Through our findings, we were able to create four recommendations that The ARC management can carry out as possible ways to increase the amount of members that actively make use of the universal change room.

The limitations the researchers faced through the duration of this study was the small sample size, randomization of the population, as well as the possibility that participants would be bias or answer our survey without effort.

The implications of the study can be directed towards increasing female physical activity levels and the recommendations can be applied towards universal change rooms in any facility.

This study found four main recommendations with regards to increasing patronage of the universal change room (UC) at The ARC at UBC - Vancouver:

1. Posters and signages that celebrates the UC inclusivity for all genders
2. Target Females to Increase Physical Activity
3. Additional Universal Change Room Signs
4. Staff Universal Change Room Training

Introduction

Universal change rooms (UC) are designed to provide a comfortable and secure space for individuals who do not feel safe or welcomed in gender specific changerooms (The University of British Columbia - Vancouver Campus, 2019).

Previously named as family change rooms, using the term 'universal' is important as it provides access and promotes inclusivity for all individuals regardless of their ability, gender and civil status (The University of British Columbia - Vancouver Campus, 2019). Aside from educational institutions, community centres have also started to install and reconstruct their washrooms and change rooms into a more gender-inclusive space (The University of British Columbia - Vancouver Campus, 2019; Parvini, 2018; Judd, 2015).

Compared to gender-specific change rooms, UC provide more privacy since most shower, washroom and change room stalls have walls that span from the floor to the ceiling (HCMA, 2018). In addition, each of these stalls have individual sinks and garbage receptacles in the bathroom (HCMA, 2018).

As the space is more private, it allows users to be more comfortable when using the washroom or change room (HCMA, 2018). Furthermore, with the UC, it caters to a much wider population which fosters diversity and inclusion (Parvini, 2018).

In relation to educational institutions, it would also allow students to focus on their health and wellness without having to worry about the details of their safety (Parvini, 2018).

The idea of UC's are impactful to students at educational institutions as it can be incorporated and influence other institutions to do the same. Therefore, promoting inclusivity for all students (Parvini, 2018).

It is important to consider that despite the intentions of inclusivity and openness of UC, most individuals accustomed to gender specific change rooms are still hesitant to utilize these facilities, such as at educational institutions like the UBC - Vancouver at The ARC Recreation Fitness Facility (The ARC).

Thus, the purpose of this project is to highlight potential reasons for the population's reluctance to use UC at The ARC at UBC - Vancouver by surveying facility users and staff. Through this project, our goal is to create suggestions to understand patron perceptions, increase knowledge, and better the experiences with the UC at The ARC.

Literature Review

Architecture and Design

The goal of the UC is to create a more inclusive environment for all individuals regardless of race, culture, gender, and sex (HCMA, 2018).

As most people tend to avoid using gender-specific facilities due to the lack of accommodation and inclusivity, introducing UC into schools and community centres started becoming a priority for all to be comfortable in their respective space (HCMA, 2018; The University of British Columbia - Vancouver Campus, 2019).



Those include, but are not limited to, transgender or non-binary, as well as people with disabilities, body image concerns or religious restrictions (Parvini, 2018).

Some individuals express feelings of anxiousness in these sort of environments, hence, by having a universal area with private change rooms it allows for privacy and inclusivity at the same time (Parvini, 2018).

HCMA Architecture + Design, a locally based architecture and design company showcases a portfolio of spaces they have created that contain UC and washrooms (HCMA, 2018). In the making of universal spaces they have put in place goals to ensure positive experiences with the facility.

These goals include: inclusivity and access for all, openness and increased safety, privacy which creates more comfort amongst users, signage that indicates function, and staff that are knowledgeable and supportive (HCMA, 2018).

HCMA has also noted that the change rooms are now being named universal change rooms instead of previously named family change rooms (HCMA, 2018). Specifically, the use of the word 'family' implies that they are designated solely for parents and/or guardians and their children. According to HCMA (2018), there have been instances where single individuals or those without children attempt to use the family change rooms, but have found that families are not as welcoming towards them, especially during high traffic times. Therefore, the current term, 'universal', focuses on inclusion for everyone regardless of abilities and genders (HMCA, 2018). Moreover, it removes the idea that family facilities are reserved only for those with children (HCMA, 2018).

Stigma

Washrooms and locker rooms that are universal to everyone is an opportunity to increase sports participation for people in the lesbian, gay, bisexual, transsexual, transgender, intersex, queer, questioning, two-spirit, asexual (LGBTQ+) community (Cunningham, Buzuvis, Moiser, 2018).

Despite the inclusivity for everyone to have access to UC, there are various forms of stigma that have been and are currently stained on society (Cunningham et al., 2018).

For example, self-stigma refers to the individual that foresees the stereotype that lies around and directed towards them, thus, they face discrimination or avoid changing rooms (Cunningham et al., 2018). The notion of being excluded does not only have an impact on the LGBTQ + community, but also on heterosexual individuals as well (Cunningham et al., 2018).



According to Hargie, Mitchell & Somerville (2017), many sport participants find that using a communal washroom is a challenging barrier to overcome due to the fear of being discriminated. An individual who is heterosexual or homosexual may feel obligated to use locker rooms that match their inherited sex (Hargie et al., 2017). As a result, many internalize the notion of being excluded and perceive denial of social acceptance as daunting (Hargie et al., 2017).

There are also several stressors on stigmatized groups where they experience violence or insults from individuals that internalizes the stigma (Herek, 2007, 2009; Meyer, 2007). Many observers that notices the act of violence and incivility on stigmatized groups may be directly affected negatively by displaying a decline in health and discontinuation of using communal washrooms (Cunningham et al., 2018). That being said, culture exclusion is associated with a stigma that has impact on all people who participate in sports and need access to locker rooms (Cunningham et al., 2018).

First-Hand Experiences

The implementation of UC into public spaces such as in schools and community centers can provide individuals who identify as LGBTQ+ the opportunity and space to feel safe and protected. However, Porta et al. (2017) state that LGBTQ+ individuals face significantly more violence and harassment as opposed to their peers that identify as straight or cisgender. In turn, these are often characterized as the least safe space which can result in consequences for academic achievement and psychosocial wellbeing (Porta et al., 2017).

As a result, this could affect the individuals physical activity participation as they may be less motivated to go to the facility and feel more anxious due to the potential barriers they would have to face.

Based on a study done by Porta et al. (2017) on LGBTQ+ youth on their experiences in gender-neutral and unisex bathrooms, many participants vocalized the need for advocacy regarding single stall public bathrooms as well as availability and accessibility of a gender-neutral bathroom.

Through lived-experiences, many youth and individuals face a range of negative experiences. Some of these include being uncomfortable, awkward, and misunderstood to feeling unsafe or scared which made these individuals avoid using gender-neutral bathrooms (Porta et al., 2017).

Additionally, these first hand experiences also presented the barrier of lack of accessibility to gender-neutral bathrooms in schools and some community centres (Porta et al., 2017). This could be due to the fact these individuals were uncomfortable and scared of being judged or harmed because the bathrooms were labelled gender-neutral or unisex (Porta et al., 2017).

Therefore, meaning any person could enter and use the washroom which may result in violence, harm, or disparities to one's mental, physical and social health and wellbeing (Porta et al., 2017).



Further, it is important to note that the advocacy for gender-neutral bathrooms by LGBTQ+, friends of individuals who prefer unisex bathrooms, indirect advocacy efforts, and administrative support is implemented to create safe spaces for all individuals (Porta et al., 2017).

As these forms of advocacy were associated to having the most positive experiences, LGBTQ+ youth and individuals still struggle to use gender-neutral bathrooms as they are tucked away in basements or remote areas in public places (Porta et al., 2017). Instead, they choose to use staff washrooms that typically more accessible and are single stalled (Porta et al., 2017).

By implementing policies, legislations, recommendations such as being purposeful about hearing voices, educating health professionals, policy makers, politicians, school administrators, and having parents to recognize the importance of UC, it will diminish the effects of avoiding the use of gender-neutral bathrooms (Porta et al., 2017).

Methods

Participant Choice and Rationale

Although the ARC is open to public users, our research was focused on students (N=12) who utilize the gym facility at the ARC. In addition, to gain an understanding if enough information is being provided to users at the UC at the ARC, staff members were also asked to participate in a survey. At UBC - Vancouver, there are a few student recreational centers located on campus that aim to improve health promotion and physical activity for the UBC - Vancouver community (The University of British Columbia - Vancouver Campus, 2018). The ARC is one of the two recreational facilities that comprise of universal washrooms and change rooms for public users as well as male and female washrooms.

We planned to measure individual awareness, thoughts and the usage of the ARC universal facilities because according to Nathan Jesse, manager of the Student Recreation Centre, there are individuals who are unsure about using the universal spaces (personal communication, January 15, 2019)

Thus, we have decided to gather and collect our data by surveying students at the ARC. Consequently, we were able to gain a better understanding of any barriers or preferences people have for recreational changing rooms.

Participant Recruitment: When and How

For this research, we used participants using a mix methods approach. Two survey questionnaires were formulated for this research, one for users and one for staff members. Both survey questionnaires were created and collected through Qualtrics. The user survey consisted of ten quantitative questions and two qualitative questions (see student survey question on appendix). Meanwhile, the staff survey included seven quantitative questions and one qualitative question (see staff survey question on appendix).

Our data collection took place during two days. Our first day of data collection began on March 11, 2019 at 9 am.

Before starting our survey, we spoke to the manager of The ARC asking if we can set up a table beside the UC to collect our data. We approached participants in person on a three minute interval as an attempt to make our research as randomized as possible.

To start, we asked users if they were interested in participating in our survey regarding the UC at the ARC. However, we had some individuals who were not interested and refused to participate in our survey. As a result, we restarted our three minute interval until a participant was willing to be part of our survey.

After an hour of collecting data, we had 12 participants which consisted of 6 males and 6 females. Following the student data collection period, we approached two staff members that were working at the front desk, and asked them to participate in our survey that was made for staffs.

Our second day of data collection was held on March 13, 2019 at 11 am where we asked two more staff members to participate in our staff survey.

Data Analysis

After all the data was gathered, we imported all the information from both staff and student survey questions from Qualtrics to an excel sheet (see student and staff survey question transcription on the appendix).

Next, content and thematic analysis were used to interpret qualitative responses. Thematic analysis identified recurring themes and patterns with each response (see “themes” on results and findings) while content analysis was performed to quantify each responses from the likert scale survey questions (see table 2 on the appendix).

As a result, we identified specific reasons and barriers why individuals opted to use gender-specific change rooms instead of the UC. Additionally, with feedback from our sample population it allowed us to formulate necessary recommendations and strategies to improve patronage of the UC at the ARC.

Meanwhile, after gathering quantitative data such as age (see table 1 on the appendix), gender (see chart 1 on the appendix) and ethnic background (see chart 2 on the appendix), pie chart and tables were used to illustrate the frequency of the responses for each category.

By using this method, it provided us with information of the different age groups, gender, ethnic background and the usage and non-usage of the UC at the ARC.

Moreover, for our quantitative statistics, we used standard deviation for the likert scale questions to measure the variability of the responses from each of the participants.

Results and Findings

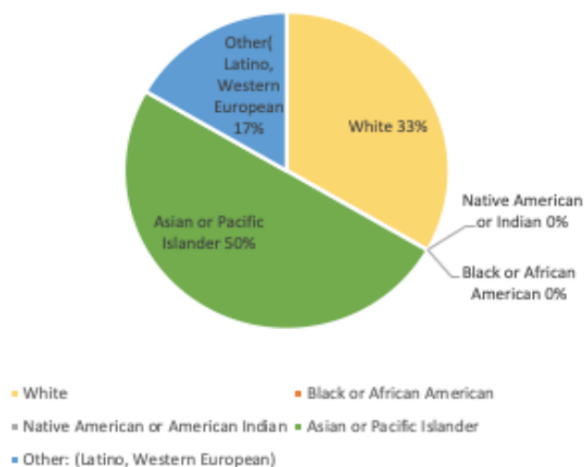
Results

Analysis was done on responses from 12 ARC users. In addition to those 12 survey responses from the users, we analyzed the 4 staff member surveys. Questions on the user survey include, their age, ethnic background, and quantitative and qualitative questions about the opinions of the UC.

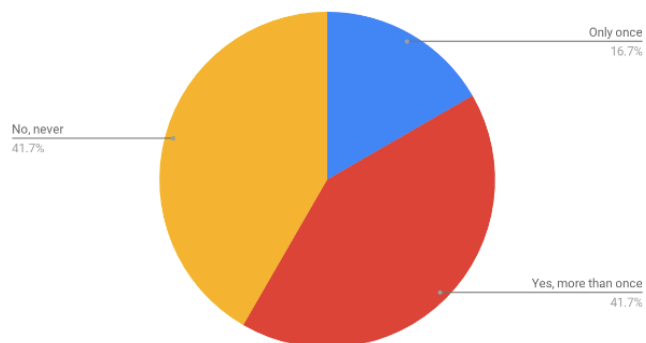
As shown in chart 1 (ethnicities), there were primarily two major ethnic backgrounds; Asian/Pacific Islander which consisted of 50% of the surveyed patrons and 33.33% of which were "White", with the remaining 16.67% are in the "Other" category.

In addition, all the survey response users were all in the age range of 18-24 (N=12). Of these patrons, only 16.67% of users have used the UC once, 41.67% have used it more than once, and 41.67% have never used it at all with a standard deviation (SD) of 1.95.

Ethnic Background



"Do you use the universal change room?"



In addition to the background information we collected from each participant, we asked the users to rate on a scale of 1-7, from strongly disagree to strongly agree about their opinions/thoughts of the change rooms style and message. For the purpose of interpreting the findings, the statement 'agree' will include strongly agree, agree, and somewhat agree. Similarly, the statement "disagree' will include strongly disagree, disagree, and somewhat disagree.

To start off, we asked about their comfort level of entering into a UC. 83.33% of the user's stated that they are comfortable, 8.33% had no opinion and 8.33% disagreed (SD=1.54).

Secondly, we asked about the convenience of the UC, in which the majority believed that they are convenient and accessible.

Furthermore, enjoyment was assessed, in which most patrons enjoy using the change rooms while others had no preference. Specifically, 58.33% agreed, 33.33% neither agreed or disagreed, and 8.33% disagreed (SD = 1.91).

Next, we wanted to determine the comfortability of seeing individuals of different genders using the same change room. 75% of the users agreed in that they are comfortable seeing individuals of other genders in the same change room, 8.33% had no opinion, and 16.67% said they disagreed to that statement (SD = 1.35).

In addition, we evaluated if the patrons were aware of the existence of the change rooms, or whether they have seen a UC prior to the ones introduced at the ARC. 75% of the users have said they have, while 25% of the users said they have not (SD = 1.51).

Lastly, we asked if the user would choose to use the UC over the male or female change rooms. Surprisingly, only 25% said they would use the UC over the specified gendered change rooms. Meanwhile, 16.67% neither disagree or agreed, and 58.33% disagreed (SD = 2.04).

To further support the user's findings, qualitative data was collected asking if they think UC are important for institutions. 91.67% responses show positive feedback in terms of supporting inclusiveness about gender identity, diversity, and inclusivity.

Further information was collected on whether the patron has been provided information or knowledge on the UC prior to using the ARC. 25% of the users have indicated that they have been informed and 75% said they have not been informed.

We asked if the signs and symbols used to advertise the UC clearly indicate who is allowed to use them. The vast majority, with the exception of one, agreed that the signs and symbols are clearly indicate who can use the communal change room.

Next, we tested their knowledge to see if they knew that the UC contained floor to ceiling bathrooms and change room stalls. In which 75% have responded with 'yes'.

Lastly, we asked if the patrons were aware that the UC showers are behind closed and locked doors that span from floor to ceiling. With results showing that 83.33% people said 'yes', they were aware of that.

Additionally, to further investigate all aspects of the UC, we conducted a separate survey used to gather information from the staff at the ARC. Four responses were collected from operations and floor staff, all within the age range of 18-24 years. 75% of the staff did not receive any training regarding the change rooms. One however did receive training, but it was a short overview including a tour inside and who can use it.

Themes

Inclusivity was a recurring theme throughout the user survey. One respondent suggests that UC are important since " [He] believes that it's very important for universal changing rooms to be established. In an environment of diversity, we need to show that we are accepting and open to whoever is going to attend this institution" (see table 6 on the appendix). Another respondent also states that UC are important because "they are inclusive of other genders that aren't male or female" (see table 6 on the appendix).

"The universal change rooms promote inclusivity, which UBC promotes"

- Anonymous ARC user

Furthermore, comfortability and privacy was another common theme. One participant wrote, "I do feel [UC] are important because not only do they make people who are non-binary feel more comfortable, but they help gender binary people who prefer a more private setting for changing and showering" (see table 6 on the appendix). Meanwhile, another participant suggests that UC are important "because they give everyone the option to change where they feel comfortable" (see table 6 on the appendix).

Surprisingly, when asked directly about their suggestions and improvements they want to see implemented at the ARC UC, most participants had no recommendations. Only one participant suggested implementing a bigger space for the UC (see table 7 on the appendix).

"No, they're pretty great! Having a closed door is important for many, I'm sure"

- Anonymous ARC user

Discussion

Data from surveys suggest a possible relationship between gender and usage of the UC, and there was no effect on usage if participants had knowledge on the layout of the UC or could clearly see the signs and symbols. By identifying any patterns, ways to increase UC usage can be found and suggestions and recommendations can be provided to the UBC ARC facility manager.

Our findings suggest that out of the 12 participants surveyed, the percentage of individuals that had used the UC "more than once" was 41.67%, males made up 33.33% and females 8.33%.

Demonstrating that men chose to use the UC more often than females did. This could potentially be related to the fact that more females, compared to males, 'disagreed' with the statement "I feel comfortable going into the UC." Also, more females 'disagreed' with the statement "I am comfortable seeing individuals of different genders in the same change room," than did men.

One possible explanation for the lack of comfortability of women in the UC could be linked back to the issue of safety.

Based on the study done by Porta et al. (2017), it was found that some individuals feared for their safety. Alternatively, women may feel intimidated by the presence of men in a change room area. Due to feelings of reduced comfort of females in UC, a possible linkage can be made to the lower rates of physical activity found in females compared to their male counterpart (Wallhead & Buckworth, 2004).

We found that regardless of the knowledge that participants had on the layout of the UC, its usage was unaffected. Seven men and women answered 'yes' to questions 8-10 on the UC usage survey (refer to appendix), but this knowledge of the increased privacy of the genderless change room compared to the gender specific change rooms did not affect their choice in facility. However, even though these individuals were aware of the privacy in the UC, a majority did not (except one) learn this through an ARC staff member when they first started using the centre.

According to the staff survey (refer to appendix), 75% of staff stated that no training had been given to them, thus, it can be said that they may not have the knowledge to pass onto users of the ARC itself. It can be speculated that although participants had knowledge on the universal facility layout, that due to the absence of a formal introduction by the ARC staff members to the patrons, they are hesitant to use the communal change room.

Finally, the participants that stated they had never used the UC, or only used it once, had also shared that they see the importance and value in the building of a UC. It is to be noted that both UC users and non-users see the establishment of UC as important for the inclusivity for "[those] who choose not to openly showcase their gender," or "genders that are not male or female," or "someone that is going through a transition," and "transgendered people." These statements demonstrate that some ARC users may think that the UC is only for people that do not identify themselves as male or female. Additionally, it was apparent that the non-users still valued the importance of the UC, although for people other than themselves.

On the other hand, we found that staff survey answers were inconsistent. Out of the four staff members we surveyed, only one of them received training about the UC, although their start date for employment at the ARC was similar. This lack of training provided to the staff members could be a driver for a decreased UC usage.

Limitations

Initially when deciding to conduct a separate staff survey, we did not anticipate to have an issue with the number of participants available. However, this became an issue when we realized that on average, there were only two to three staff members working at a time. We tried to avoid this problem by going to the ARC on different days, but some staff members were the same. Although this was a challenge we faced, we decided that we did not need a large amount of staff surveys, as all the answers were very similar for the four individuals that we did survey. If we were to re-do our project, we would start collecting staff surveys in advance to ensure that we get a variety of individuals to answer our survey.

Also, even though the staff responses had little variety, we would still interview more ARC staff members to increase the external validity of the outcome.

Another barrier that we faced in our study is our sample size. Since our sample is relatively small, it might not truly reflect the general consensus of the population that do not utilize the UC facility at The ARC. As a result, our study has less external validity since it may not accurately apply to the population outside of those we survey (Kowalski et al., 2018). Thus, we were not able to reach the full extent of what our study aims to accomplish due to the small sample size.

Moreover, some individuals at The ARC may have already been asked to participate in a similar survey with a different group from Kinesiology 464: Health Promotion & Physical Activity which may have caused them to not put effort into answering our survey questions with thought or care. To prevent this issue we asked individuals who have not participated yet in a similar study to decrease the possibility of affecting the quality of our survey answers and data.

When we approached the participants, after introducing ourselves and the project we also asked if they had already completed another KIN 464 survey. Luckily, we did not encounter anyone that had previously answered a KIN 464 survey from another group. We avoided this issue by beginning our survey collection as early as we could to ensure that we were one of the first groups to survey the ARC. In a re-run of this project, we could include a question at the beginning of the survey asking if they had already completed a KIN 464 survey. In doing so, we do not limit the amount of participants we can ask, but we would know who might be biased or not put as much effort into their answers.

Another limitation faced was the target population group. During our data collection, we focused on the members of the ARC who we noticed did not use the UC. By narrowing down our target population to only non-UC users, we limit the answers we can receive. In the future, I would make our target population larger to include both users and non-users of the UC.

In doing so, our research would have increased external validity and apply more accurately to the general population. Furthermore, it would allow us to study the reasons individuals use the UC.

Lastly, another challenge faced was the randomization of our survey participants. It was difficult to ensure that participants were chosen randomly as many of our group members are familiar with a lot of the students that use the ARC facility and may have drifted towards asking individuals that they are more comfortable with. Also, surveys were conducted every three minutes to attempt to randomly choose participants. The limitation also lies in that many students come to the ARC in groups or pairs, meaning that people may be inclined to answer similarly to their friend or may be biased due to the presence of another person. This challenge can be tackled better in the future by informing participants that come in pairs or groups that it is imperative that these surveys are completed individually, or by avoiding asking pairs or groups to answer our surveys.

Based on the feedback from the students, recommendation plans will be made to increase patronage of the UC.

Recommendations

1) Posters or signage that celebrates the UC's inclusivity for all, including members of the LGBTQ+ community and binary men and women

When asked whether users of the ARC find the implementation of UC important, many answered using language that indicated that they assumed the UC were meant only for users that consider themselves a part of the LGBTQ+ community. These statements allude to the possible belief by participants that only people that are not traditionally male or female are allowed to use the communal change room. In order to change the thought process and advocate for UC usage for all, we recommend implementing a marketing strategy that employs the use of physical and digital media.

At the beginning of the new school year, Fall 2019, when students arrive back to the ARC, would be the most ideal time to display the advertisements. The posters (both digital and physical) could include a photo of the UC, a short phrase indicating that the UC are for all genders, and a few points about what can be found inside the change rooms. By actively promoting the UC, ARC patrons both new and old will be aware of the UC, and not be afraid to use it in the future.

2) Additional Universal Change Room Signage

By placing another sign that says 'UC' or includes symbols indicating that it is a universal facility at the end of the hall for each UC entrance. In doing so, it removes the possibility of confusion. This recommendation comes from first-hand experience using the UC.

Due to the minimal signage located in the UC promoting that the space is in fact the UC, it can often be confusing to know which change room you are entering.

The confusion can be elevated if the first person you see when walking in is of the opposite gender. This uncertainty has the possibility to turn-away members from using the UC and cause them to use the male or female change rooms. By placing an additional sign inside, it can ensue confidence into first-time users or individuals who want to be sure they have walked into the UC.

3) Universal Change Room Training

According to the ARC staff survey we conducted, only 1 out of 4 employees received UC training. This indicates that employees may not be able to answer any questions members may have about the UC. If staff members have more knowledge regarding the UC then we believe that they would be able to better promote usage of the communal change room. Training for the staff members could be provided during their first few shifts and can be short but informative. For current employees, training sessions could also be held for them during their shifts.

4) Informing females that UC are a safe space due to private stalls

One assumption of our survey is that women are less likely to utilize the UC due to safety reasons. According to our sample data collection on the likert scale questions, all 6 males agreed that they felt comfortable using the UC, while 2 out of 6 females disagreed or were neutral with their comfort level. Thus, the responses we received from females indicates that we could target females to increase physical activity for them. Additionally, our findings displayed that female participants were not comfortable sharing the UC with another gender (predominantly males). These findings can be attributed to women feeling intimidated by the presence of men in a change room area. As a result, reduced comfort of females in UC can be possibly linked to the lower rates of physical activity found in females compared to their male counterpart (Wallhead & Buckworth, 2004). However, by informing females users that UC are a safe space due to having private stalls through facility tours led by The ARC staff members, females may be more likely to utilize the space and feel a sense of safety and comfort when around their male counterparts. In turn, this could play a role in a potential increase in physical activity levels in females.

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Appendix

Student Survey Questions: https://ubc.ca1.qualtrics.com/jfe/form/SV_d59whL53PxauJ5b

Student Survey Questions transcription:

<https://docs.google.com/spreadsheets/d/14oLKzN0ee7PZFDkCYJwsnJd9-oAw9FfAgW2ZB4qVcTU/edit?usp=sharing>

Staff Survey Questions:

https://ubc.ca1.qualtrics.com/jfe/form/SV_5zO3fUwYN45Wg9n

Staff Survey Questions transcription:

[https://docs.google.com/spreadsheets/d/1umEGSZotYAC9atphUnXsjZZD7L1_R4RvGr3e7BU
MAjM/edit?usp=sharing](https://docs.google.com/spreadsheets/d/1umEGSZotYAC9atphUnXsjZZD7L1_R4RvGr3e7BUMAjM/edit?usp=sharing)

Chart 1: Gender

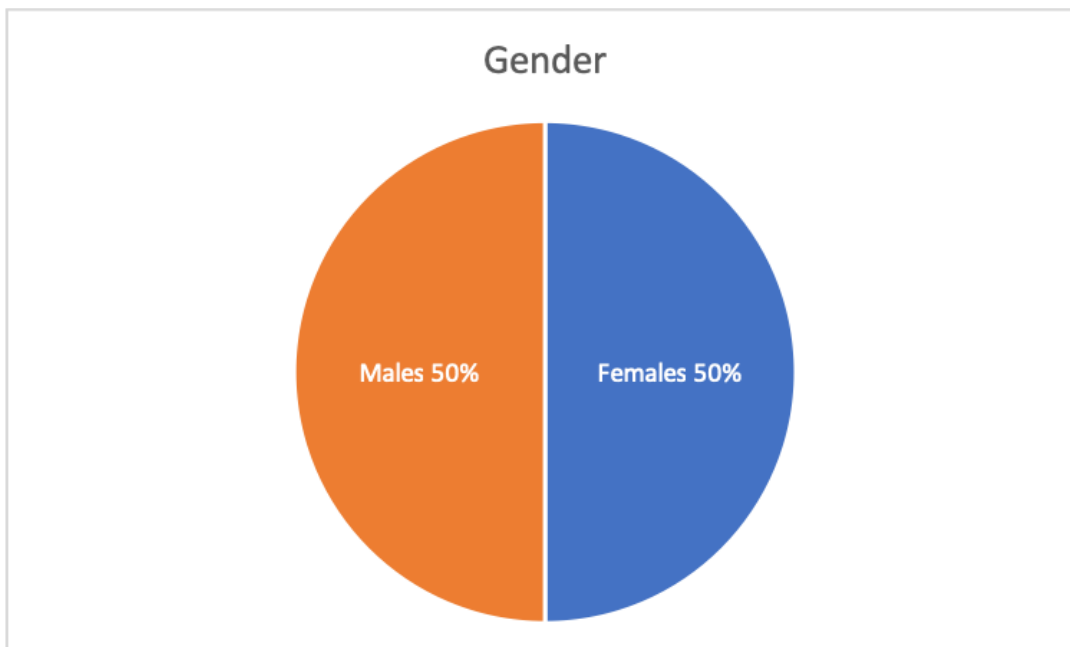


Chart 2: Ethnic Background

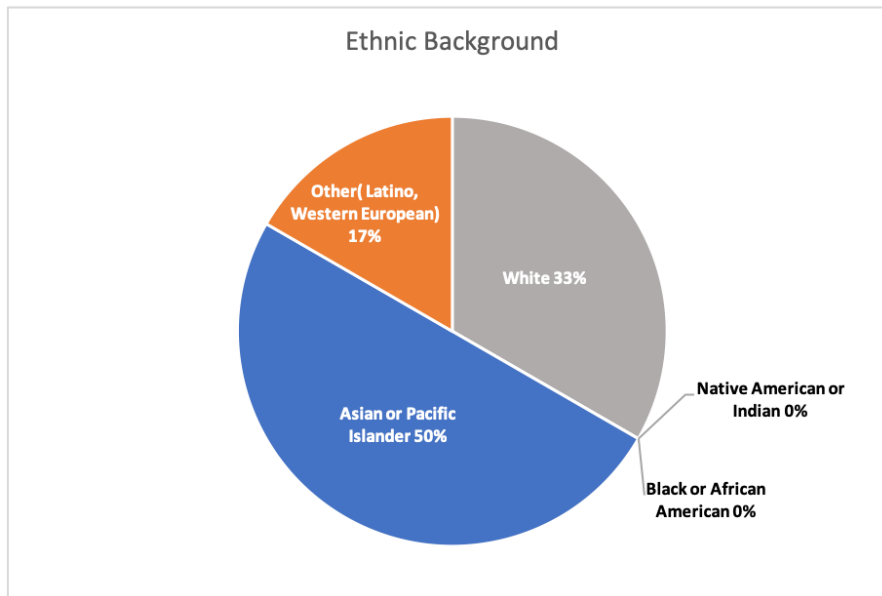


Chart 3: Usage of the universal change room at The ARC

Usage of the UC at the ARC

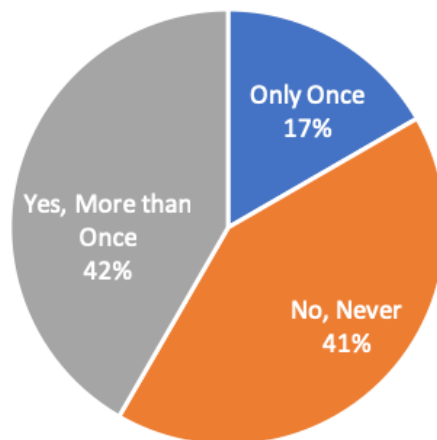


Chart 3: Dissemination of knowledge for the UC at The ARC

Information Given About UC at the ARC

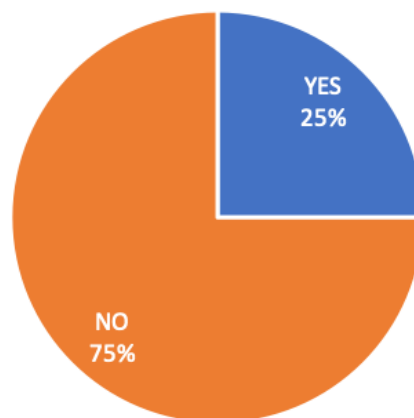


Table 1: Age

Age	# of People:
18-24 years old	12
25-34 years old	0
35-44 years old	0
45-54 years old	0
55-64 years old	0
65-74 years old	0
75 and older	0

Table 2: Likert Scale Questions

	Strongly Agree	Agree	Somewhat Agree	Neither Agree/ Disagree	Somewhat Disagree	Disagree	Strongly Disagree
Q1	33.33%	33.33 %	16.67%	8.33%	8.33%	0%	0%
Q2	41.67%	41.67 %	8.33%	0%	8.33%	0%	0%
Q3	16.67%	33.33 %	8.33%	33.33%	0%	8.33%	0%
Q4	25%	33.33 %	16.67%	8.33%	8.33%	8.33%	0%
Q5	33.33%	33.33 %	8.33%	8.33%	8.33%	0%	0%
Q6	16.67%	8.33%	0%	16.67%	58.33%	0%	0%

Q1: I feel comfortable going into the UC

Q2: The UC is convenient for me to access when I am using The ARC

Q3: I enjoy the UC

Q4: I am comfortable seeing individuals of different gender in the same change room

Q5: I was aware of the existence of UC prior to seeing one at UBC

Q6: When using The ARC, I choose the UC over the male or female change rooms

Table 3: Visibility of the Signs and Symbols of the UC at The ARC

Signs and Symbols Clearly Visible?	# of People
YES	11
NO	1

Table 4: Knowledge of the Floor to Ceiling Walls?

Floor to Ceiling Walls	# of People
Yes	9
No	3

Table 5: Awareness of the structure and privacy of UC at the ARC

Showers and Change rooms with floor to ceiling walls and locked doors?	# of People
Yes	10
No	2

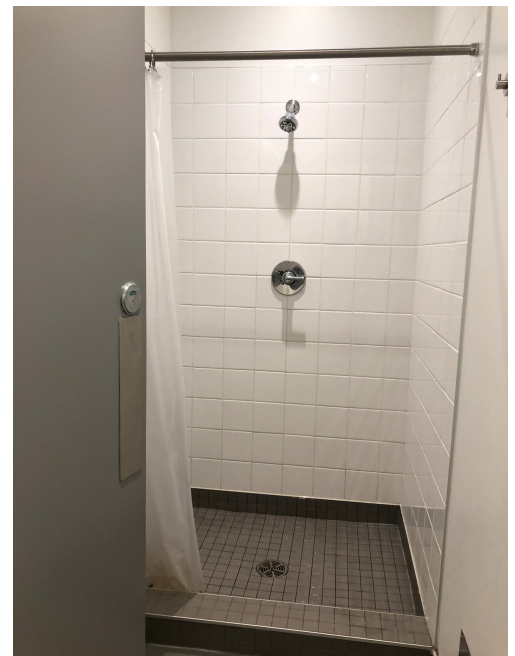
Table 6: Importance of the UC at the ARC

Yes, so they are inclusive of other genders that aren't male or female.
Yes, as it provides an additional option with those who choose not to openly showcase their gender
I believe that it's very important for universal changing rooms to be established. In an environment of diversity, we need to show that we are accepting and open to whoever is going to attend this institution.
i think they are important because they provide a space where everyone feels comfortable
Yes, it's important to give everyone an option
yes because they give everyone the option to change where they feel comfortable
Yes because it encourages gender equality
yes bc it promotes inclusivity, which ubc promotes
no.. doesn't really matter...
yes, to better serve transgendered people
Yes definitely! If someone is going through a transition then it's important that they have a place to do their bathroom duties without worrying about what others think of them.
Yes I do feel they are important because not only do they make people who are non-binary feel more comfortable, but they help gender binary people who prefer a more private setting for changing and showering.

Table 7: Recommendation to improve UC at The ARC

No
No
I don't have any suggestions.
none
No
NO ANSWER
Nope!
bigger space
NO ANSWER
I have never been into the UC so I would not know
No, they're pretty great! Having a closed door is important for many, I'm sure
Nope

Images of the Universal Change Room



Staff Survey Consent Form

Recorded Date	Q1 - By completing this survey you are providing consent for this data to be use...
Mar 12, 2019 1:28 PM	<input type="checkbox"/> Yes
Mar 12, 2019 1:26 PM	<input type="checkbox"/> Yes
Mar 11, 2019 11:05 AM	<input type="checkbox"/> Yes
Mar 11, 2019 11:04 AM	<input type="checkbox"/> Yes

Student Survey Consent Form

Recorded Date	Q8 - By completing this survey you are providing consent for this data to be use...
Mar 11, 2019 6:11 PM	<input type="checkbox"/> Yes
Mar 11, 2019 5:18 PM	<input type="checkbox"/> Yes
Mar 11, 2019 12:24 PM	<input type="checkbox"/> Yes
Mar 11, 2019 11:16 AM	<input type="checkbox"/> Yes
Mar 11, 2019 11:10 AM	<input type="checkbox"/> Yes
Mar 11, 2019 11:03 AM	<input type="checkbox"/> Yes
Mar 11, 2019 11:00 AM	<input type="checkbox"/> Yes
Mar 11, 2019 10:57 AM	<input type="checkbox"/> Yes
Mar 11, 2019 10:52 AM	<input type="checkbox"/> Yes
Mar 11, 2019 10:44 AM	<input type="checkbox"/> Yes
Mar 11, 2019 10:38 AM	<input type="checkbox"/> Yes
Mar 11, 2019 10:35 AM	<input type="checkbox"/> Yes