Universal Changerooms Project: Improving Patron Experience with Universal Changerooms

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University of British Columbia

KIN 464

Themes: Health, Buildings, Community

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KIN 464

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Submitted to: Instructor Negin Riazi

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EXECUTIVE SUMMARY

The purpose of this project was to explore and develop strategies to improve users’ experiences in the universal changeroom at the University of British Columbia’s new Aquatic Centre. Data was collected using a survey, which consisted of both qualitative and quantitative questions to find common inquiries and concerns of the space. The study’s survey also looked to collect individual characteristics of participants to examine if certain demographics experience the changerooms differently. Our focus population involved the patrons already visiting the Aquatic Centre. We conducted these surveys by approaching participants in the waiting areas outside the changerooms and through convenience sampling, by posting the surveys in various social media forums.

Many of the survey responses revealed that of those participants who did not use the universal changerooms, the space was not a deterring factor from continuing to visit the Aquatic Centre. Therefore, physical activity behaviours were not affected by the universal changerooms for most patrons. The small percentage who indicated that their participation was effected were part of the non-cis gendered community.

From these patron’s experiences and concerns, we derived perceived barriers to using the universal changeroom that fell into the general themes of safety, maintenance, accessibility, and circulation of appropriate information. In terms of concerns with safety, patron’s frequently mentioned policies, desire to change and shower openly, and visibility from the public. The limited maintenance of amenities and accessibility of the space was a primary issue for most participants. There was frequent commentary surrounding the inconsistency of the shower functions, malfunctioning of essential features, and cleanliness of the facility. In addition to issues with the physical aspects of the universal changeroom, many participants revealed confusions about the space. Issues involving these misconceptions may be caused by the methods through which patrons are receiving their information regarding the universal changerooms.

After analyzing our data and discussion, we recommended making improvements in safety protocols specific to the universal changerooms. Strategies for this area of improvement include signage defined conduct, and supervision procedures of users in the space. This can ensure that each patron using the universal changerooms understands the appropriate conduct, and can answer any doubts by newcomers. Additionally, we recommended increased monitoring of the maintenance for the universal changerooms. Development of detailed maintenance protocols can help sustain a welcoming, clean aesthetic for visiting patrons. We also recommend promoting the universal changeroom to target populations of marginalized populations.

The physical activity behaviours of the users of the University of British Columbia Aquatic Centre are seemingly habitual regardless of the availability of the universal changerooms. Future studies should be conducted with a more diverse population to attain further experiences of those whom the universal changerooms are designed for.
INTRODUCTION AND LITERATURE REVIEW

The University of British Columbia (UBC) recently built a new Aquatic Centre, which incorporates a universal changeroom into its design. Toronto’s architecture firm MJMA designed the universal changeroom at the UBC Aquatic Centre (UBC AC) to improve inclusivity while offering users total privacy and the ability for every patron to feel secure (Dick-Agnew, 2018). This is achieved by individual changing stalls, accessibility features, and a welcoming, transparent environment. However, it is frequently inquired about the availability of separate, gendered changerooms (Frequently Asked Questions, n.d.). This brings into question the reasons why patrons are hesitant to use this new changing space. Despite their purposeful design, meant to ensure patrons’ full comfort and safety, there is a current lack of data exploring whether the universal changeroom is thoroughly fulfilling users’ expectations. The objective of this study is to explore the knowledgeability and understanding of patrons to further improve user experience thereby promoting the UBC AC as a supportive environment for physical activity.

According to HCMA Architecture and Design (2018), there are multiple strategies on how to design universal changerooms. It is important to accommodate for all demographics to incorporate and standardize diverse needs (HCMA Architecture and Design, 2018). For example, providing washing stations of different heights can support the needs for younger children or people in wheelchairs (HCMA Architecture and Design, 2018). Although areas such as washing stations and lockers are shared, it is also essential to create privacy and sense of safety where it is needed (Dick-Agnew, 2018). Having individual stalls and doors with full height enclosures for changing rooms, showers, and toilets will enhance privacy and provide comfort for users (HCMA Architecture and Design, 2018). To make clear that individuals must use the cubicles when changing, the interior of the changeroom is designed to be visible from the outside (Dick-Agnew, 2018). This increases the visibility of the changeroom, allows shared monitoring for safety, and encourages patrons to make use of the space. Patchett and Foster (2015) acknowledge that the lack of information surrounding the novel universal changerooms may generate skepticism among patrons. It is crucial to welcome everyone with coherent signage emphasizing the function, inclusivity, and accessibility of these spaces (HCMA Architecture and Design, 2018). These may include key messages on conduct, the use of gender neutral terminology, and articulation of the changeroom’s function (HCMA Architecture and Design, 2018). These designs of the universal changeroom strives to create a functional, user-friendly, space for the UBC AC to promote physical activity in a welcoming environment.

Universal changerooms provide an alternative changing space for individuals who want added privacy or do not identify with the binary-gender changerooms (Patchett & Foster, 2015). Plummer (2006) indicates that single-sex sports changerooms may become an uncomfortable or threatening environment for those who feel different from their peers. Data collected from interviews of 30 males ranging from different ages and sexual orientation showed that young males in particular can feel more self-conscious about their physical development and sexual orientation when required to undress around their peers (Plummer, 2006). Discomfort and fear of being looked at or unintentionally looking at someone else are highly likely to occur in changerooms (Plummer, 2006). These feelings, termed sport phobias, cause a significant decrease in the level of physical activity in young males (Plummer, 2006). Therefore, it is important to consider how the configuration of these universal changerooms may reduce discomfort while improving safety for patrons.

Similarly, transgender participants of a study conducted by Jones, Arcelus, Bouman and Haycraft (2017) report constant discomfort primarily caused by the infrastructure of changing facilities. After conducting semi-structured interviews with 16 pool managers, researchers found that a facility’s inclusivity of the LGBTQ+ community is affected by a number of factors, such as facility operations and marketing (Anderson et al., 2018). Furthermore, Anderson et al. (2018) provided managerial strategies to improve these barriers of inclusion in aquatic recreation environments.
Providing gender-neutral changing areas, training facility staff regarding LGBTQ+ issues, and implementing LGBTQ+ specific marketing efforts are thought to effectively reduce facility-use constraints (Anderson et al., 2018). Improvement in this domain would likely also have a positive impact on users’ experience in these spaces.

Binary-gendered spaces in aquatic centres, the focus of many facility-user issues, are seen to be detrimental to inclusion of the LGBTQ+ community (Anderson, Knee, Ramos, & Quash, 2018). Another population that is often affected by similar facility issues are individuals with disabilities. When compared to the general population, physical activity behaviours are significantly reduced in individuals with disabilities, due in part to the limited accessibility of facilities (Yoh, Mohr, and Gordon 2008). Further, Grana (2018) establishes the importance of expanding knowledge about physical disability inclusion in recreational facilities. It is crucial that amenities like changerooms are accessible to users with mobility issues, different gender attendants, or trans and non-binary users (HCMA Architecture and Design, 2018). By presenting flexible spaces serviceable to any demographic, universal changerooms enhance inclusivity for all users of the facility (HCMA Architecture and Design, 2018). The UBC AC’s universal changeroom aims to serve as a welcoming and safe environment to all patrons who visit the UBC AC.

It can be seen from the literature that changeroom design can significantly affect the physical activity behaviours of a facility’s users. Due to the sheer novelty of universal changerooms at UBC, there remains uncertainty of whether the effects of the space, if any, are beneficial for improving patron’s participation at the aquatic centre. Therefore, the purpose of this study aims to review and examine the implementation of the universal changeroom in the UBC AC. This study uses patron’s survey responses to help explore suggestions to improve the current experience in the UBC AC’s universal changeroom and also for future recreational facilities on the UBC campus.

**METHODS AND PROCEDURE**

The following steps are the procedure used to collect and examine the data used to develop recommendations for improvement of the management and promotion of the universal changerooms. The first completed action was meeting with the assigned SEEDS partner contact to discuss the purpose and background of the project “Universal Changerooms: Improving Patron Experience with Universal Changerooms”. Additionally, the contribution, design and deliverables, and special considerations were also disclosed. Academic and grey literature were then reviewed to explore practices of universal changerooms and washrooms in a variety of fitness facilities and to identify gaps in the literature.

A mixed methods approach was implemented to gain statistical information as well as personal experiences from a diverse population of participants. The theoretical population of this study is defined as users of the universal changeroom in the UBC AC. This includes, but is not limited to, the LGBTQ+ community, families, people with disabilities, and users with different gendered attendants. A convenience sampling strategy was utilized by this study; researchers provided online surveys to patrons that were outside the universal changeroom at the UBC AC during the peak weekend hours. This strategy provided the optimal timeline to reach a larger population and reach a greater diversity of participant demographic.

Two methods of data collection were used. The first involved collection throughout the course of a weekend during the peak business hours of the UBC AC. Participants were approached after their swim in various public waiting areas around the UBC AC. If an individual was unavailable to complete the survey at that time, they were offered an information card with an option to complete the survey
online at their leisure. The second data collection method was convenience sampling through a survey link which was posted in UBC student groups online. The distributed survey was created through the Qualtrics software provided by UBC and administered on a tablet for added privacy. Participants were asked to read and sign the consent form (Figure 1.1, Appendix A), which was automatically provided upon visiting the link and required informed consent before authorized access to the survey. The consent form informed of the right to discontinue their participation at any time. Participants who discontinued their involvement were given the option to have previous information removed from the study. No compensation was provided for participating in this research.

The survey consisted of questions that provide both quantitative and qualitative data. It included questions regarding patron demographic to determine any knowledge gaps between the different age-groups or genders/sexualities that utilize the changerooms. These questions will allow us to analyze the experiences of these demographics and the users’ knowledge of the concept of a universal changeroom. According to HCMA Architecture and Design (2018), the UBC AC was constructed with specific transparent enclosures to enhance the sense of privacy and comfort for its users. Therefore, the questions used in this study not only investigated patrons’ knowledge about the universal changeroom but also whether the structure provides them the intended level of amenity. To best understand user experiences, the survey posed open-ended questions to the participants regarding their understanding and involvement with the universal changerooms. All the survey questions can be found in Figure 1.2 (Appendix A).

DATA ANALYSIS

Once all data from the survey was transcribed, the data was analyzed using content and thematic analysis. Thematic analysis was used on qualitative data collected from open ended questions by searching for themes within the responses and identifying patterns in that content. Qualitative data also use content analysis by keeping count of frequent certain barriers were mentioned and identified. Content analysis was also used with quantitative data, where participants were asked to rate experience through a likert-scale which was then transcribed into graphs to quantify similar responses. Multiple questions on the survey asked participants to explain why they chose a certain response. These answers are then used to give context to themes that were identified as barriers in our study. The data collected from our analysis allowed us to contrast the difference between universal and gender assigned changerooms. It also compared the different needs and concerns of females, males, transgender, and non-conforming participants. Through this process we are able to identify issues and create recommendations for improvements.

RESULTS AND FINDINGS:

All results discussed can be found in Appendix A and raw data can be found in Appendix B.

PARTICIPANT DEMOGRAPHIC

While 52 participants were surveyed, only 45 valid and complete surveys were returned, which still exceeds the proposed objective of 40 participants. About 55% of participants identified as female, approximately 40% identified as male, and less than the remaining 5% identified as transgender or non-conforming (Figure 2.1, Appendix A). 91% of survey responses were completed by patrons between the ages of 18 and 29 years, 4% were responded by patrons between the ages 30 and 39 years, while the remaining 5% was split between patrons falling in the age groups of 50 to 59 years or over 60 years (Figure 2.2, Appendix A).
PARTICIPANT EXPERIENCE AND USE OF CHANGEROOM

When asked about the function of the universal changeroom, patrons frequently used words implying the changeroom as an inclusive environment and design to allow a diverse space (Figure A).

The breakdown of the typical changeroom patrons will use when participating at the UBC AC is as follows (Figure A).

Of those who typically use the universal changeroom, 62% are male, while 23% are female, and 15% are transgender or non-conforming.

Out of all the participants, 72% had previously used the universal changerooms. Of these participants, only 45% reported that they feel extremely comfortable while using the universal changerooms, while the remaining 55% reports ranged from feeling slightly uncomfortable to moderately comfortable (Figure 2.3, Appendix A). Users of the universal changeroom were asked to report the level that the space meets their overall needs. While only 28% declared their satisfaction as extremely well, 69% reported the changeroom to meet their needs at a level of moderately to very well, and a marginal 3% stating complete dissatisfaction (Figure 2.4, Appendix A). The 28% of participants who had not used the universal changerooms reported that they refrain from using this space due to a variety of reasons, such as comfort, privacy, size, and misunderstanding (Figure 2.5 Appendix A).

PERCEIVED BARRIERS TO USING THE UNIVERSAL CHANGEROOM

The survey provided input on each participant’s knowledge, experience, and concerns in regard to the universal changerooms. Using a thematic analysis of responses by participants, we determined 3 perceived barriers to using the universal changeroom. These 3 themes included: (1) Safety, (2) Maintenance, and (3) Circulation of Appropriate Information (Figure C).
<table>
<thead>
<tr>
<th>Theme</th>
<th>Characteristics</th>
<th>Times Mentioned</th>
</tr>
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<tbody>
<tr>
<td>Safety</td>
<td>Specific policies</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Desire to change/shower openly</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Visible to non-AC public</td>
<td>7</td>
</tr>
<tr>
<td>Maintenance</td>
<td>Cleanliness</td>
<td>3</td>
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<tr>
<td></td>
<td>Broken Amenities</td>
<td>4</td>
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<td></td>
<td>Showers</td>
<td>4</td>
</tr>
<tr>
<td>Accessibility</td>
<td>Space</td>
<td>7</td>
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<td></td>
<td>Features for people with disabilities</td>
<td>1</td>
</tr>
<tr>
<td>Circulation of Appropriate Information</td>
<td>Misunderstanding layout of changeroom</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Non cis-gendered patrons</td>
<td>3</td>
</tr>
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**Safety**

18 out of 25 female participants continue to use women’s changerooms instead of universal changerooms due to safety concerns. Many of their criticisms attributed their discomfort from being visible to the public outside of the UBC AC. Further commentary revealed that is a common preference to change and shower openly rather than in a cubicle.

“People outside can see you a bit when in the universal room. [It is] Easier to not have to find an empty change closet/ washroom in the women’s [change]room, can just easily change right there (...) in comfort” – Participant

“Men’s [changeroom] has no cubicles so less private from people around you but when walking back from the pool in your swim suit people from outside can’t see you” – Participant
“You can strip naked anywhere in the women’s and nobody will give you a second look which is nice” – Participant

Additionally, participants not only questioned the ambiguity of policies specific to the universal changeroom, but also claimed other patrons for not following policies.

“It is sometime uncomfortable because there are men who will go and sit on the benches and just look into the changeroom.” – Participant

“Because you have to go into stalls to change, parents won’t always have an eye on their kids.” – Participant

**Maintenance**

The dissatisfaction of the cleanliness and maintenance of the universal changeroom was commonly mentioned in the survey responses. The primary comments were focused on the malfunctioning showers, a dirty appearance, and broken amenities.

“Should be cleaned more often, and broken showers fixed. The lockers are often jammed and a lot keys do not have wristbands.” – Participant

“Can we get warmer showers?” – Participant

“The bathrooms are usually dirty, showers broken. Dryers inconveniently located above toilets.” – Participant

Participants highlighted design flaws that caused a decrease in accessibility and accommodation to the volume of people that use universal changerooms. Results determined that space in the universal changeroom during peak hours was a primary concern.

“It’s really busy in both change rooms, but Women’s has more locker space.” – Participant

“There are smaller changing cubicles in universal and not women’s or men’s. Not many benches in universal outside of cubicles.” – Participant

A concern involving a person with disabilities criticized the infrastructure and maintenance, which interfered with the accessibility of the changeroom.

“My friend who takes her grandma in a wheelchair says that the doors are really heavy which makes it difficult for her to get in and out of stalls—sometimes the accessibility buttons don’t work.” – Participant
Circulation of Appropriate Information

Those who claimed they did not know about the universal changeroom prior to their first visit to the UBC AC made up 30% of participants (Figure 2.6, Appendix A). 25% of those responses claimed that after learning about the space changed their participation in the UBC AC (Figure 2.7, Appendix A). Out of the 70% of participants who knew about the changerooms, there was an 8% who said their knowledge of this space would change their physical activity (Figure 2.8, Appendix A). This 8% included participants are part of the non-cis gendered community.

Data was collected on how patrons learned about the universal changeroom (Figure D).

Although 64% of information was learned through UBC audited means, the remaining 37% patrons gained their knowledge of the universal changerooms through word of mouth and observation.

Multiple survey responses included queries about the space’s structure and misjudgments surrounding who may be permitted into the changeroom.

“Why is it so large? Why is it glass?” – Participant

“I question whether the space is enclosed enough to make people feel comfortable changing there.” – Participant

DISCUSSION

The focus of this study was to explore the needs of the UBC AC patrons to assess if the universal changeroom is fully serving the needs of its users. A total of 45 participants answered our survey questions in regards to how they use the space, their knowledge about universal changerooms, and what can be improved to encourage the use of these changerooms. Our results determined many concerns during patrons’ experience in the UBC AC universal changerooms. Based on our findings, a primary barrier to user’s full satisfactory experience of the universal changeroom is patron’s perceived privacy and safety.

Although 30 of the participants answered that they have used the universal washroom before, their use of the space is not consistent and most still resort to using gender assigned changerooms. For example, out of the 25 females that answered our survey 18 of them still choose to use the women’s changeroom even though they have been in the universal changerooms before (Figure B). The most common reason cited by participants as to why they still use gender assigned changerooms is the privacy offered by the opaque walls. While the the universal changerooms were intended to reduce privacy concerns by allowing patrons to use individual stalls (Dick-Agnew, 2018), participants
contrarily feel a lack of privacy due, in part, to another concern about the universal changerooms—a diminished feeling of safety

A frequently shared experience among participants was that a lack of a feeling of safety created a general unease while using the universal changerooms. A significant portion of the participants, many female, felt that they were often being watched through the glass design of the changeroom. The deliberate transparency feature was intended to reduce theft and cut down on harassment (Dick-Agnew, 2018). However it appears that making it possible for the public to view you from the outside actually has the unintended effect of reducing feelings of safety and makes many users uncomfortable with the space. Male participants on the other hand like to use the universal changerooms because it is less crowded and more spacious. For many female participants, it seems they prefer changing and showering openly rather than in cubicles. Additionally, some of the female respondents feel uncomfortable sharing changerooms with males despite the private changing stalls.

A further concern for safety came from parents who did not feel comfortable letting their child alone in universal changerooms; this resonated with parents with daughters, in particular. Many participants mention the limited protocols specifically for the changeroom. Commentary frequently discussed how the lack of monitoring of user’s poor conduct while in the space discourages patrons to go to the universal changeroom.

Another common barrier which people encountered while using universal changerooms was the maintenance and cleanliness of the space. The universal changerooms are expectedly a high traffic area - this is the first access point to the pool deck. However, a majority of the people who choose not to use the space expressed disappointment stating that universal changerooms are constantly dirty, making it uncomfortable to use. Further complaints include jammed lockers, nonfunctional showers, and full stalls during high traffic times. It then takes a long period of time for issues to be fixed which creates less space for locker use, longer wait time for shower stalls, and reduced changing options. overall making the space undesirable to use. Perhaps a more striking issue are those that affect the accessibility of the space for individuals with disabilities. One respondent included a comment about accessibility buttons which are often broken and private stall doors being too heavy. Some of these features were specifically included to improve not only the accessibility of the space, but also to assure the safety of the patrons (HCMA Architecture and Design, 2018), but may actually be deterring individuals from entering the using the universal changeroom in the first place.

Finally, the lack of use from the remaining 29% of the participants stem from not knowing it exists and misunderstanding who is allowed to use the changerooms. Some individuals who do not use the space think universal changerooms are reserved only for those who are non-cisgender patrons, or families. Out of all the participants, 70% previously knew about the universal changerooms, which mirrors the ratio of participants who have previously used the space. This indicates that a gap of patrons who do not use the universal changeroom may be due to a lack of promotion. Only 40% of participants learned about the universal changeroom through a UBC representative or website, which questions the validity of information the other 60% of participants are receiving. It is unclear if this information is due to misunderstanding or incorrect circulation of information.

From the qualitative data that has been collected from the surveys, the 92% of the participants did not think learning about the universal changeroom change will affect their participation in physical activities at the UBC AC. This reveals that providing another option for changing is not a factor that could affect the level of physical activities for the majority of users in the UBC AC. However, of these individuals who claimed to not have prior knowledge of the universal changerooms, 25% of identified as transgender. This participant also stated a change in participation at the UBC AC after learning more about the universal changeroom. This response was given by only one of two non-cis gendered
participants in the study. This characterizes the lack of participation from this community at the aquatic centre. The universal changeroom is designed for people who are more comfortable in non-gendered areas (HCMA Architecture and Design, 2018). The idea that this target community is not receiving information regarding these spaces displays a lack of appropriate education and circulation of knowledge.

The present study, however, has some limitations. After collecting our data, we encountered a lack of diversity among our participants. One of the main purposes of a universal changeroom is to create an inclusive space for all users (HCMA Architecture and Design, 2018). Unlike the expected outcome, there was lack of transgender and non-conforming participants in the study. Since our discussion analyzes data surrounding the experiences of primarily females and males (Figure 2.1), our recommendations may be limited to only benefit these two genders. Additionally, with the majority of the sample belonging to the age group of 18-29, this study’s sample does not accurately represent the population of UBC AC users. Since the data was collected from the patrons continuing to use the UBC AC, it excludes the concerns from the population who chose to not visit the UBC AC. This may counteract the purpose of improving a more inclusive environment. Future studies should aim to recruit a larger sample size with a wider diversity of the population in order to obtain a broader view from different people and to represent more accurate results. Stratified sampling could be an ideal selection process to achieve this result.

RECOMMENDATIONS

RECOMMENDATION #1: Improvement of safety protocols specific to universal changeroom.

We recommend that a code of conduct is made specifically for the universal changeroom. Although patrons understand the concept of the changeroom, it is unclear to some what the safety protocols are. Although there are codes of conduct and behaviour signage around the pool, it can be helpful for a list of rules for users to follow when specifically, in the universal changeroom. Confusion and unawareness of demeanor in the universal changeroom is expected, which is why it is important that signage and user education define the distinctive behaviours in the changeroom (HCMA Architecture & Design, 2018). If signage specifically for the universal changeroom was displayed for patrons before they enter into the changing area, then new users can not only discern the differences of conduct in each space, but also develop a greater understanding of the intentional design. This can be used as an opportunity to clearly outline where people should change, who is allowed in the universal changeroom, and ways to act in the space. The openness on either side of the universal changeroom was an issue that was brought up multiple times in our data. In order to help users in the changeroom feel more comfortable, we suggest moving the benches outside the windows of the changeroom so patrons who choose to sit and wait outside the changerooms are not able to look directly into the vulnerable space. Another solution may be to frost the glass facing outside the aquatic centre to allow some transparency, but also give patrons more sense of privacy. It is also recommended a protocol is implemented to ensure that there are no loiterers outside the universal changeroom that may cause an unsafe or uncomfortable environment for patrons inside the changeroom.

RECOMMENDATION #2: Improve maintenance of changeroom

To help increase patron’s satisfaction in the universal changerooms we recommend the spaces are constantly monitored to be operational and to maintain cleanliness. Many concerns and
reasons raised by participants who do not use this space are largely focused on the functionality of the universal changeroom. According to Stanis et al. multiple attributes including cleanliness and safety in recreational settings are more inviting for patrons and help encourage physical activity. By ensuring the universal changeroom is continually operative and meets the needs of its users, it may encourage other patrons to use the space. These aspects of the facility – touchable items that are part of the service environment – are identified as tangible elements by Lentell (2000). As highlighted in our results, many dysfunctional features of the universal changerooms are deterring patrons from using the space. These common grievances revealed from our data, such as faulty showers and malfunctioning lockers, are basic amenities for recreational changing spaces. In order to effectively increase usage and patron satisfaction of any leisure service, Lentell (2000) suggests that the most important change to be made involves refining the tangible elements of the facility. If the goal is to attract a more diverse user population for the universal changerooms, the essential features should be the primary focus of maintenance. Additionally, a standout criticism reported in our results addressed a patron’s challenging experience with heavy doors and defective accessibility buttons. Yoh, Mohr, and Gordon (2008) consider that a key reason for low physical activity participation among students with disabilities are due to the circumstance that the facility’s accessibility fundamentals are frequently ignored. To further attract patrons with disabilities for which the universal changeroom is designed for, it is recommended to ensure the accessibility features of the space are operational. As suggested by Osmon, Cole, and Vessel (2006), the cleanliness and functionality of the facility’s amenities are vital for user’s satisfaction and a greater level of upkeep can result in a higher return of users in the future.

RECOMMENDATION #3: Target audience marketing of universal changeroom.

As highlighted in our data, there was limited participation from a number of marginalized groups; more specifically, transgender people and people with disabilities. To improve the physical activity behaviours of these marginalized groups we recommend using deliberate promotion strategies of the universal changeroom space as a means to attract these target populations to participate in the programs and initiatives held at the aquatic centre. These promotion strategies may include the “snowball technique” explored by Sadler, Lee, Lim and Fullerton (2010), in which individuals from a specific community use their network to recruit similar participants. Transgender people, in general, suffer negative experiences when engaging in physical activity caused by barriers which range further than the availability of adequate changing facilities (Jones, Arcelus, Bouman & Haycraft, 2017). Barriers range from body dissatisfaction to transphobia associated with participating in physical activity (Jones et al., 2017). Additionally, Yoh et al. (2008) reports the engagement in physical activity of people with disabilities is significantly lower than that in the general population. These reasons, similarly, are not limited to the environmental barriers, but are guided by the lack of integration of these students in collegiate environments (Yoh et al., 2008). A benefit for this particular “snowball technique” is the great deal of trust it engenders among the possible participants since information is circulated by their peers. (Sadler et al., 2010). By using this targeted marketing approach – or what is known as “narrowcasting” (Sadler et al., 2010) – UBC can successfully disseminate positive messages of the universal changerooms to these narrowly defined audiences, which may encourage increased physical activity behaviour at the UBC AC.

As discussed by Anderson et al. (2018), a comfortable changeroom experience precedes a more pleasurable user experience when in the swimming pool environment. A comfortable environment will not only foster improved physical activity behaviours, but also physical and mental health (Patchett & Foster, 2015). Not only do the patrons of the UBC Aquatic Centre benefit from further research, but also the patrons of facilities that are currently using or designing universal changerooms.


Hello and welcome to our survey. With your permission, we are asking you to participate in a confidential survey. With the information gathered, students will critically examine how different individuals understand or engage with the universal change rooms at the UBC Aquatic Centre.

**Principal Investigator:**
Negin Riazi (PhD Candidate, School of Kinesiology, Faculty of Education)

**The purpose of the class project:**
To gather knowledge and expertise from community members on topics related to physical activity, recreation, and health promotion.

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

UBC SEEDS Program Library:
https://sustain.ubc.ca/courses-degrees/alternative-credit-options/seeds-sustainability-program/seeds-sustainability-library

**Potential benefits of class project:**
There are no explicit benefits to you by taking part in this class project. However, the 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 who participate in the survey is paramount, and no names will be asked for.

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

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

Contact for information about the study:
If you have any questions about this class project, you can contact Negin Riazi by phone at 604-822-5288 or by email at negin.riazi@ubc.ca

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 RSCL@ors.ubc.ca or call toll free 1-877-822-8598.

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

Your completion indicates that you consent to participate in this study.

☐ Yes, I consent to participate.
☐ No, I do not consent to participate.

Question Block

What age group do you belong to?

[ ]
Figure 1.2

To which gender identity do you identify?

- Male
- Female
- Transgender
- Gender variant/non-conforming
- Not listed (please specify) [ ]
- Prefer not to answer

How often do you visit the UBC Aquatic Centre?

- This is my first time
- 1-3 times a week
- 3-5 times a week
- 5+ times a week

When do you usually visit the UBC Aquatic Centre? Choose all that apply.

- Weekdays
- Weekends
- Morning
- Afternoon
- Evening

Who do you visit the UBC Aquatic Centre with? Choose all that apply.

- No one, I swim alone.
- My child/children
- My significant other
- Other (please specify) [ ]
- My friend(s)

What change room do you choose to use when visiting the pool?

- Women’s change room
- Men’s change room

Universal change room

What do you believe the purpose of the universal change room is? Briefly explain.

Who do you think is allowed in the universal change room? Briefly explain.

Have you used the universal change room?
- [ ] Yes
- [ ] No

How comfortable are you when using the change room?
- [ ] Extremely comfortable
- [ ] Moderately comfortable
- [ ] Slightly comfortable
- [ ] Neither comfortable nor uncomfortable
- [ ] Slightly uncomfortable
- [ ] Moderately uncomfortable
- [ ] Extremely uncomfortable
Why do you choose to not use the universal change room? Please select all that apply.

- Comfort
- Privacy
- Change room space
- Other
- I prefer not to answer

How well does the structure of the universal change room meet your needs? (i.e. change room space, privacy, accessibility etc.)

- Extremely well
- Very well
- Moderately well (why)
- Slightly well (why)
- Not well at all (please list why)

Please explain the differences (if any) in experience of using the Men’s/Women’s change room compared to the universal change room.

Wore you aware of the universal change room before your first visit to the UBC Aquatic Centre?

- Yes
- No

How did you learn about the universal change room before visiting the UBC Aquatic Centre? Please select all that apply.
Will learning about a universal change room affect your participation in activities at the UBC Aquatic Centre?

- Definitely yes
- Probably yes
- I do not know
- Probably not
- Definitely not

Did learning about a universal change room affect your participation in activities at the UBC Aquatic Centre?

- Definitely yes
- Probably yes
- I do not know
- Probably not
- Definitely not

What questions or concerns do you have about the universal change room at the UBC Aquatic Centre?

Figure 2.1
Figure 2.4

Percentage level of how well the universal changeroom met patron's overall needs

Figure 2.5
Figure 2.6
Percentage of patrons who were aware of the universal change rooms before their first visit to the UBC AC

Figure 2.7
Will learning about the universal change rooms affect your participation in activities at the UBC AC?
Figure 2.8

Did learning about a universal changeroom affect your participation in activities at the UBC AC?

APPENDIX B

Default Report

*UBC AC universal change room*

April 2nd 2019, 10:19 am MDT

New Custom Page
Q23 - Hello and welcome to our survey. With your permission, we are asking you to participate in a confidential survey. With the information gathered, students will critically examine how different individuals understand or engage with the universal change rooms at the UBC Aquatic Centre.  

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

The purpose of the class project: To gather knowledge and expertise from community members on topics related to physical activity, recreation, and health promotion.  

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

UBC SEEDS Program Library: https://sustain.ubc.ca/courses-degrees/alternative-credit-options/seeds-sustainability-program/seeds-sustainability-library  

Potential benefits of class project: There are no explicit benefits to you by taking part in this class project. However, the 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 who participate in the survey is paramount, and no names will be asked for.  

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

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

Contact for information about the study: If you
Hello and welcome to our survey. With your permission, we are asking you to participate in a confidential survey. With the information gathered, students will critically examine how different individuals understand or engage with the universal change rooms at the UBC Aquatic Centre. Principal Investigator: Negin Riazi (PhD Candidate, School of Kinesiology, Faculty of Education) The purpose of the

<table>
<thead>
<tr>
<th>#</th>
<th>Field</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std Deviation</th>
<th>Variance</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Hello and welcome to our survey. With your permission, we are asking you to participate in a confidential survey. With the information gathered, students will critically examine how different individuals understand or engage with the universal change rooms at the UBC Aquatic Centre. Principal Investigator: Negin Riazi (PhD Candidate, School of Kinesiology, Faculty of Education) The purpose of the</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>0.00</td>
<td>0.00</td>
<td>49</td>
</tr>
</tbody>
</table>
class project: To gather knowledge and expertise from community members on topics related to physical activity, recreation, and health promotion. Project outcomes: The information gathered from survey questions will be part of a written report for the class project. The written report will be shared with the community partners involved with the project. Summaries of findings will also be posted on the following websites. No personal information/information that could identify participants will be included in these reports. UBC SEEDS Program Library: https://sustain.ubc.ca/courses-degrees/alternative-credit-options/seeds-sustainability-program/seeds-sustainability-library Potential benefits of class project: There are no explicit benefits to you by taking part in this class project. However, the 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 who participate in the survey is paramount, and no names will be asked for. At the completion of the course, all data (i.e. responses) and signed consent forms will be kept in a locked filing cabinet in Negin Riazi’s office in the Population Physical Activity Lab (2259 Lower Mall) at the University of British Columbia. All data and consent forms will be destroyed 1 year
after completion of the course.

Risks: The risks associated with participating ...

<table>
<thead>
<tr>
<th>#</th>
<th>Answer</th>
<th>%</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes, I consent to participate.</td>
<td>100.00%</td>
<td>49</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>100%</td>
<td>49</td>
</tr>
</tbody>
</table>

Q1 - What age group do you belong to?

Participant Age Groups
<table>
<thead>
<tr>
<th>#</th>
<th>Field</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std Deviation</th>
<th>Variance</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>What age group do you belong to?</td>
<td>1.00</td>
<td>5.00</td>
<td>1.20</td>
<td>0.74</td>
<td>0.55</td>
<td>46</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>#</th>
<th>Answer</th>
<th>%</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>18-29</td>
<td>91.30%</td>
<td>42</td>
</tr>
<tr>
<td>2</td>
<td>30-39</td>
<td>4.35%</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>40-49</td>
<td>0.00%</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>50-59</td>
<td>2.17%</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>60+</td>
<td>2.17%</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>100%</td>
<td>46</td>
</tr>
</tbody>
</table>

Q2 - To which gender identity do you identify?

Participant Gender Identity

[Pie chart showing gender distribution]

Legend:
- Female
- Male
- Transgender
- Gender variant/non-conforming
- Not listed (please specify)
- Prefer not to answer
### Gender

<table>
<thead>
<tr>
<th>#</th>
<th>Answer</th>
<th>%</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Male</td>
<td>40.43%</td>
<td>19</td>
</tr>
<tr>
<td>2</td>
<td>Female</td>
<td>55.32%</td>
<td>26</td>
</tr>
<tr>
<td>3</td>
<td>Transgender</td>
<td>2.13%</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>Gender variant/non-conforming</td>
<td>2.13%</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>Not listed (please specify)</td>
<td>0.00%</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>Prefer not to answer</td>
<td>0.00%</td>
<td>0</td>
</tr>
</tbody>
</table>

**Total** 100% 47

---

**Q16 - How often do you visit the UBC Aquatic Centre?**

- **1.00**  **4.00**  **2.55**  **1.03**  **1.06**  **47**
<table>
<thead>
<tr>
<th>#</th>
<th>Answer</th>
<th>%</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>This is my first time</td>
<td>12.77%</td>
<td>6</td>
</tr>
<tr>
<td>2</td>
<td>1-3 times a week</td>
<td>46.81%</td>
<td>22</td>
</tr>
<tr>
<td>3</td>
<td>3-5 times a week</td>
<td>12.77%</td>
<td>6</td>
</tr>
<tr>
<td>4</td>
<td>5+ times a week</td>
<td>27.66%</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
<td><strong>47</strong></td>
</tr>
</tbody>
</table>

Q3 - When do you usually visit the UBC Aquatic Centre? Choose all that apply.

- Weekdays: 28.30% (30)
- Weekends: 21.70% (23)
- Morning: 15.09% (16)
- Afternoon: 17.92% (19)
- Evening: 16.98% (18)
Q6 - Who do you visit the UBC Aquatic Centre with? Choose all that apply.

Accompaniments of Patrons Visiting the UBC Aquatic Centre

<table>
<thead>
<tr>
<th>#</th>
<th>Answer</th>
<th>%</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>No one, I swim alone.</td>
<td>26.79%</td>
<td>15</td>
</tr>
<tr>
<td>2</td>
<td>My child/children</td>
<td>3.57%</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>My friend(s)</td>
<td>44.64%</td>
<td>25</td>
</tr>
<tr>
<td>4</td>
<td>My significant other</td>
<td>10.71%</td>
<td>6</td>
</tr>
<tr>
<td>5</td>
<td>Other (please specify)</td>
<td>14.29%</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>100%</td>
<td>56</td>
</tr>
</tbody>
</table>

Q6_5_TEXT - Other (please specify)
Other (please specify) - Text

- Swim club
- My swim team
- teammates
- Synchro team
- Ubc swim club team

Q7 - What change room do you choose to use when visiting the pool?

Participant's Use of Changerooms

<table>
<thead>
<tr>
<th>#</th>
<th>Field</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std Deviation</th>
<th>Variance</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>What change room do you choose to use when visiting the pool?</td>
<td>1.00</td>
<td>3.00</td>
<td>1.88</td>
<td>0.87</td>
<td>0.75</td>
<td>43</td>
</tr>
<tr>
<td>#</td>
<td>Answer</td>
<td>%</td>
<td>Count</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>----</td>
<td>----------------------------</td>
<td>---------</td>
<td>-------</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Women's change room</td>
<td>44.19%</td>
<td>19</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Men's change room</td>
<td>23.26%</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Universal change room</td>
<td>32.56%</td>
<td>14</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>100%</td>
<td>43</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Q8 - What do you believe the purpose of the universal change room is? Briefly explain.

Word groupings of patron's explanation of their understanding of the universal changeroom.

What do you believe the purpose of the universal change room is? Briefly explain.

For people who are not comfortable in a same sex change room, or for families with kids (ex. dad at the pool with daughters)

There are a lot of people who do not identify as either male or female or are uncomfortable by using gendered washrooms so it creates a space where can change comfortably. Its also used by families so they do not have to solit up when changing. I have used it with my boyfriend so we don't have to pay for two separate lockers and he can help me tie my swimsuit.

Family change room and anyone else that wants to use.

For people to change before their swim

An inclusive space for everyone to change

To change

To be all inclusive!

Transgender individuals, families, if you want to change with your friends of the opposite gender

To provide and inclusive space for change that is great for families and for gender-non-conforming folks to avoid any uncomfort. Also great for everyone else!

To create a new change room space that one can choose if they feel most comfortable there

So that we are inclusive to all genders/ sexual orientations. It also provides an area for families to enter together.

Everybody can find their way to use it
Efficient use of space and sexual orientation neutral

Everyone is welcome. Privacy is increased.

Family members can use together

To give all genders a place to change

Convenience for families Able to be used by anyone regardless of gender identity

for anyone to change in cubicles

No need to ask questions, accepts everyone, good for families

To allow families to change comfortably together, while also allowing non-gender conforming individuals to feel they have a safe space to change.

I feel like it is mostly to make it an "inclusive space". I think UBC tries to stress their image of being progressive, so these change rooms are a reflection of that

An inclusive space for everyone, no matter age, gender, orientation, individuals or families.

To be inclusive to those who don’t identify as either male or female

To have a locker room where all people are comfortable changing.

For those who dont identify with the binary gender labels but also could be useful for families

So everyone has somewhere to change

To provide a inclusive changeroom for anyone who feels comfortable using it

Place to keep my items and valuables while I swim

The purpose of a universal change room is to provide a place for everyone, regardless of identity or ability, to change in an area that makes them feel comfortable.

To provide a space for people who don't want to change in the gender binary change rooms. Give a place for families to change together.

Families with kids, people who don’t identify by the male or female or cisgender.

Make people feel comfortable

To provide a place where people who don’t identify as male or female can change

To allow families to change together and for people who don’t feel comfortable using men’s or women’s changeroom.

No idea
Provide a safe space for those who choose not to use gendered changerooms because of their identity, family, or privacy concerns.

Top 25 word groupings of patron's explaining the purpose of the universal changeroom
Q10 - Who do you think is allowed in the universal change room? Briefly explain.

Who do you think is allowed in the universal change room? Briefly explain.

Everyone

Everyone

Anyone.

Everyone, but more specifically catered to families, people with disabilities, and those who don't feel comfortable going into a gendered space.

Anyone who wants to

Everyone.

Anyone

Anyone

Everyone (who is being respectful and responsible in the area).

Those who identify as neither man or woman or just feel most free in that environment

I think everyone and anyone is allowed in this change room.

Everyone

Everybody

All genders.

Anyone

Everyone

normal items...clothes, swim gear, towel

Anyone

I think anyone is allowed in the universal change room, that's why it is universal.

literally anybody

Everyone
Anyone

Anyone who prefers it to the gendered change rooms.

Anyone

Everyone because that’s who it’s meant for

Anyone

Anyone who desires

People who identify outside of the binary or those with mobility issues or children

Everyone

Everyone cuz it’s universal......

Anyone. Males or females

Everyone

All patrons of the pool, except varsity swimmers who have lockers in the men’s or women’s changerooms.

Everyone

Everyone. However, by having the universal changerooms and the gendered changerooms, it implies that the universal should almost be reserved for people who need it over those who feel comfortable using either.
Word groupings of patron’s explaining who is allowed in the changeroom
Q11 - Have you used the universal change room?

Patron's Who Have Used the Universal Changeroom

<table>
<thead>
<tr>
<th>#</th>
<th>Field</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std Deviation</th>
<th>Variance</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Have you used the universal change room?</td>
<td>1.00</td>
<td>2.00</td>
<td>1.28</td>
<td>0.45</td>
<td>0.20</td>
<td>43</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>#</th>
<th>Answer</th>
<th>%</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
<td>72.09%</td>
<td>31</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
<td>27.91%</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>100%</td>
<td>43</td>
</tr>
</tbody>
</table>
Q12 - How comfortable are you when using the change room?

Comfort Levels During Patrons Experience in the Universal Changeroom

<table>
<thead>
<tr>
<th>#</th>
<th>Field</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std Deviation</th>
<th>Variance</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>How comfortable are you when using the change room?</td>
<td>1.00</td>
<td>5.00</td>
<td>1.90</td>
<td>1.12</td>
<td>1.27</td>
<td>29</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>#</th>
<th>Answer</th>
<th>%</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Extremely comfortable</td>
<td>44.83%</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---------------</td>
<td>-------</td>
<td>---</td>
</tr>
<tr>
<td>2</td>
<td>Moderately comfortable</td>
<td>37.93%</td>
<td>11</td>
</tr>
<tr>
<td>3</td>
<td>Slightly comfortable</td>
<td>6.90%</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>Neither comfortable nor uncomfortable</td>
<td>3.45%</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>Slightly uncomfortable</td>
<td>6.90%</td>
<td>2</td>
</tr>
<tr>
<td>6</td>
<td>Moderately uncomfortable</td>
<td>0.00%</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>Extremely uncomfortable</td>
<td>0.00%</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>100%</td>
<td>29</td>
</tr>
</tbody>
</table>
Q13 - Why do you choose to not use the universal change room? Please select all that apply.

Reasons why patrons choose not to use the universal changeroom

<table>
<thead>
<tr>
<th>#</th>
<th>Answer</th>
<th>%</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Comfort</td>
<td>23.53%</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>Privacy</td>
<td>35.29%</td>
<td>6</td>
</tr>
<tr>
<td>3</td>
<td>Change room space</td>
<td>17.65%</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>Other</td>
<td>23.53%</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>I prefer not to answer</td>
<td>0.00%</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>100%</td>
<td>17</td>
</tr>
</tbody>
</table>
Q13_4_TEXT - Other

Other - Text

No reason in particular

I identify as female and went swimming with all females

Locker in women’s changeroom

I feel like it isn’t my place to use it, as it was designed for those who don’t feel comfortable using gendered changerooms.
Q20 - How well does the structure of the universal change room meet your needs? (i.e. change room space, privacy, accessibility etc.)

Percentage level of how well the universal changeroom met patron's overall needs

<table>
<thead>
<tr>
<th>#</th>
<th>Answer</th>
<th>%</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Extremely well</td>
<td>27.59</td>
<td>8</td>
</tr>
<tr>
<td>2</td>
<td>Very well</td>
<td>41.38</td>
<td>12</td>
</tr>
<tr>
<td>3</td>
<td>Moderately well (why)</td>
<td>27.59</td>
<td>8</td>
</tr>
<tr>
<td>4</td>
<td>Slightly well (why)</td>
<td>0.00</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>Not well at all (please list why)</td>
<td>3.45</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>100%</td>
<td>29</td>
</tr>
<tr>
<td>#</td>
<td>Field</td>
<td>Minimum</td>
<td>Maximum</td>
</tr>
<tr>
<td>---</td>
<td>-----------------------------------------------------------------------</td>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td>1</td>
<td>How well does the structure of the universal change room meet your needs? (i.e. change room space, privacy, accessibility etc.) - Selected Choice</td>
<td>1.00</td>
<td>5.00</td>
</tr>
</tbody>
</table>
Q21 - Please explain the differences (if any) in experience of using the Men's/Women's change room compared to the universal change room.

Please explain the differences (if any) in experience of using the Men's/Women's change room compared to the universal change room.

Universal has individual changing space, women's change room has more of a communal changing space and showers, so basically everyone sees you naked/changing

It's really busy in both change rooms, but Women's has more locker space

Don't openly change in the universal change room

You can strip naked anywhere in the women's and nobody will give you a second look which is nice

People outside can see you a bit when in the universal room. Easier to not have to find an empty change closet/ washroom in the women's room, can just easily change right there at the lockers in comfort

It is smaller, and more compact.

Can't compare because I only used the universal change room

Men's room crowded and cramped

I am not comfortable taking my daughters (both less than 5yrs) to the men's change room.

Universal is more convenient

Mens has no cubicles so less private from people around you but when walking back from the pool in your swim suit people from outside can't see you

I have only used the universal one

The universal change room has more space to change than the women’s change room which has very little bench space. It is also usually less busy.

I feel like they are both really cramped. I am comfortable in either

Universal change room is more accessible and also has individual changing stalls, whereas the women's change room does not

Universal has stalls

It's out in the open except for when you're changing so its easily accessible to the pool and the lifeguards. If anything bad happens in the universal change room it's easy for people to hear it so it also decreases the chance of anything bad happening
Full stall bathrooms

When using men’s or women’s changerooms there’s more privacy from the patrons in the pool area. In the universal, any patron can see you from the pool area. There are smaller changing cubicles in universal and not women’s or men’s. Not many benches in universal outside of cubicles.

The experience is slightly jilted as you have to find either a washroom or a changing stall to use.
Q14 - Were you aware of the universal change room before your first visit to the UBC Aquatic Centre?

Percentage of patrons who were aware of the universal changerooms before their first visit to the UBC AC

<table>
<thead>
<tr>
<th>#</th>
<th>Field</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std Deviation</th>
<th>Variance</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Were you aware of the universal change room before your first visit to the UBC Aquatic Centre?</td>
<td>1.00</td>
<td>2.00</td>
<td>1.29</td>
<td>0.45</td>
<td>0.21</td>
<td>41</td>
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</table>

<table>
<thead>
<tr>
<th>#</th>
<th>Answer</th>
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<th>Count</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
<td>70.73%</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>29.27%</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>----</td>
<td>--------</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td>100%</td>
</tr>
</tbody>
</table>
Q15 - How did you learn about the universal change room before visiting the UBC Aquatic Centre? Please select all that apply.

Responses to how patron's received information about the universal changerooms

<table>
<thead>
<tr>
<th>#</th>
<th>Answer</th>
<th>%</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>UBC recreation website</td>
<td>18.52%</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>Social Media</td>
<td>25.93%</td>
<td>7</td>
</tr>
<tr>
<td>3</td>
<td>UBC recreation representative</td>
<td>18.52%</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>Other (please specify)</td>
<td>37.04%</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>100%</td>
<td>27</td>
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</tbody>
</table>
Q15_4_TEXT - Other (please specify)

<table>
<thead>
<tr>
<th>Other (please specify) - Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>Don’t remember</td>
</tr>
<tr>
<td>I didn’t</td>
</tr>
<tr>
<td>Friend told me</td>
</tr>
<tr>
<td>Friend told me</td>
</tr>
<tr>
<td>Friends</td>
</tr>
<tr>
<td>Used to be on the swim team</td>
</tr>
<tr>
<td>Walked past it and saw</td>
</tr>
<tr>
<td>Pool Tour video</td>
</tr>
<tr>
<td>I work there Jocelyn</td>
</tr>
</tbody>
</table>

I just visited the aquatic centre and saw it
Q18 - Will learning about a universal change room affect your participation in activities at the UBC Aquatic Centre?

Will learning about the universal changeroom affect your participation in activities at the UBC AC?

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<th>#</th>
<th>Field</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std Deviation</th>
<th>Variance</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Will learning about a universal change room affect your participation in activities at the UBC Aquatic Centre?</td>
<td>1.00</td>
<td>5.00</td>
<td>3.75</td>
<td>1.30</td>
<td>1.69</td>
<td>12</td>
</tr>
<tr>
<td>#</td>
<td>Answer</td>
<td>%</td>
<td>Count</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td>----</td>
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<td>-------</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>1</td>
<td>Definitely yes</td>
<td>8.33%</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Probably yes</td>
<td>16.67%</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>I do not know</td>
<td>0.00%</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Probably not</td>
<td>41.67%</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>5</td>
<td>Definitely not</td>
<td>33.33%</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>100%</td>
<td>12</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
Q24 - Did learning about a universal change room affect your participation in activities at the UBC Aquatic Centre?

Did learning about a universal change room affect your participation in activities at the UBC Aquatic Centre?

<table>
<thead>
<tr>
<th>#</th>
<th>Field</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std Deviation</th>
<th>Variance</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Did learning about a universal change room affect your participation in activities at the UBC Aquatic Centre?</td>
<td>1.00</td>
<td>5.00</td>
<td>4.23</td>
<td>1.09</td>
<td>1.18</td>
<td>26</td>
</tr>
<tr>
<td>#</td>
<td>Answer</td>
<td>%</td>
<td>Count</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>----</td>
<td>--------------------</td>
<td>--------</td>
<td>-------</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Definitely yes</td>
<td>3.85%</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Probably yes</td>
<td>3.85%</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>I do not know</td>
<td>15.38%</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Probably not</td>
<td>19.23%</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>5</td>
<td>Definitely not</td>
<td>57.69%</td>
<td>15</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
<td><strong>26</strong></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
Q22 - What questions or concerns do you have about the universal change room at the UBC Aquatic Centre?

What questions or concerns do you have about the universal change room at the UBC Aquatic Centre?

Including it made the other changing rooms smaller (they’re way too small!!) Since there’s no way to change in a isolated stall in the women’s change room people change in the bathroom stalls and then if you actually have to use the bathroom you have to wait a long time

It’s sometimes uncomfortable because there's men who will go and sit on the benches in and just look into the change room

None

Everything is fine

Showers

people from outside can look in

none it is fine and allows you to store your clothing with friends of other genders

Why is it so large. Why is it glass

n/a

I question whether the space is enclosed enough to make people feel comfortable changing there. It is quite open. It is also quite large and can look very dirty from the outside

After learning about the change room i come more often because i don't feel like i have to choose between male or female. My only concern is that because you have to go into stalls to change, parents won't always have an eye on their kids. My friend who takes her grandma in a wheelchair says that the doors are really heavy which makes it difficult for her to get in and out of the stalls-sometimes the accessibility buttons don't work

Can we get warmer showers?

None

Should be cleaned more often, and broken showers fixed. The lockers are often jammed and a lot of keys do not have wristbands.
<table>
<thead>
<tr>
<th>#</th>
<th>Answer</th>
<th>%</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Unknown</td>
<td>100.00%</td>
<td>6</td>
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</table>

Total | 100% | 6
### Q8 - Topics

<table>
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<tr>
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<tbody>
<tr>
<td>1</td>
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<td>36</td>
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<td>Total</td>
<td>100%</td>
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</table>
### Q10 - Topics

<table>
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<tbody>
<tr>
<td>1</td>
<td>Unknown</td>
<td>100.00%</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>100%</td>
<td>35</td>
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</tbody>
</table>

The chart above represents the distribution of responses, with "Unknown" being the only category, accounting for 100% of the count. There is a total of 35 responses, all of which are marked as "Unknown."
<table>
<thead>
<tr>
<th>#</th>
<th>Answer</th>
<th>%</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Unknown</td>
<td>100.00%</td>
<td>14</td>
</tr>
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<td></td>
<td>Total</td>
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Q22 - Topics
**Q21 - Topics**

<table>
<thead>
<tr>
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<th>Count</th>
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</thead>
<tbody>
<tr>
<td>1</td>
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<td>20</td>
</tr>
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<td></td>
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<td>100%</td>
<td>20</td>
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</table>
# Q15_4_TEXT - Topics

<table>
<thead>
<tr>
<th>#</th>
<th>Answer</th>
<th>%</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Unknown</td>
<td>100.00%</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>100%</td>
<td>10</td>
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</tbody>
</table>

![Bar chart with 'Unknown' as the only category and 100% count]