



## **Introduction**

Over the course of the semester, we were privileged to work in collaboration with Ileana Costrut and Paul Gagnon of CityStudio and the City of Vancouver, respectively, in order to address some of the goals and obstacles the city has identified as important to achieve its Zero Waste goal by 2040. Primarily, we focused on the City of Vancouver's Single-Use Item Reduction Strategy. The City of Vancouver describes this strategy as an action plan which has been implemented from now until the year 2025 that aims to reduce waste from a variety of sources including "disposable hot and cold drink cups" (City of Vancouver, n.d.).

We implemented this strategy by conducting workshops and interactive activities with the patrons of the Killarney Community Centre (KCC). KCC is a public centre located in east Vancouver which offers a variety of recreational activities and services for all community members across various demographics. The specific interest with this community centre was due to its waste diversion rate which presented some opportunities for growth. The majority of the buildings owned by the City of Vancouver have a waste diversion rate of approximately 90%, however, KCC has a waste diversion rate of roughly 50%, making it increasingly vital to address ecological sustainability with its patrons (P, Gagnon, personal communication, January 16, 2019).

Our short-term outcome for our project was to increase awareness of the KCC patrons on environmental issues related to disposable item usage and incentivise them to reduce single-use, disposable cups by employing the slogan "Choose to Reuse". Our aim was to test the effectiveness of the slogan "Chose to Reuse" and understand what associations the patrons of KCC had with the slogan.

Community food security is a term used to emphasise that “all individuals in a community must have access to affordable, safe, culturally appropriate, ecological responsible and nutritionally adequate food at all time” (Land, Food and Community II, 2019). Community food security encompasses all three pillars of sustainable development: ecological, economic, and equitable sustainability. For the purposes of our project, via the conduction of our workshop and interactive activities, we addressed the pillar of ecological sustainability.

Through the guidance and collaboration with CityStudio and the City of Vancouver, we were able to address this ecological pillar by aligning our visions. As students of LFS 350 and as active citizens of Vancouver, we wanted to address the ecological component of community food security, which was complementary to CityStudio’s vision “to make Vancouver more sustainable, liveable and joyful” (CityStudio, 2019), as well as the City of Vancouver’s ‘Greenest City goal’ of “keeping pollution out of the environment” (City of Vancouver, 2019).

According to a field study on the effectiveness of battery recycling slogans, positive associations were found in factors such as good ecological argumentation, creativity, humour, and ease of comprehension, and a commanding tone was found to be negatively associated with the effectiveness (Hansmann, Loukopoulos & Scholz, 2009). In addition, Hansmann and Steimer (2015) investigated the importance of “personal, problem-centred face-to-face conversations” on addressing causes of environmental issues such as littering. In our project, we focused on ease of comprehension and good ecological understanding. To support our findings, we analyzed both written responses and oral comments.

## Methods

We confirmed our short-term outcome to be the determination of the effectiveness of the slogan “choose to reuse” during the our second meeting with our community partners, Paul and Ileana on Feb. 13th, and conducted a waste reduction workshop on March 6th at KCC. During the workshop, we presented the disadvantages and environmental repercussions of using disposable cups, and contrasted it to the choice of reusable mug usage with interactive activities (detailed activities are listed in Table 1).

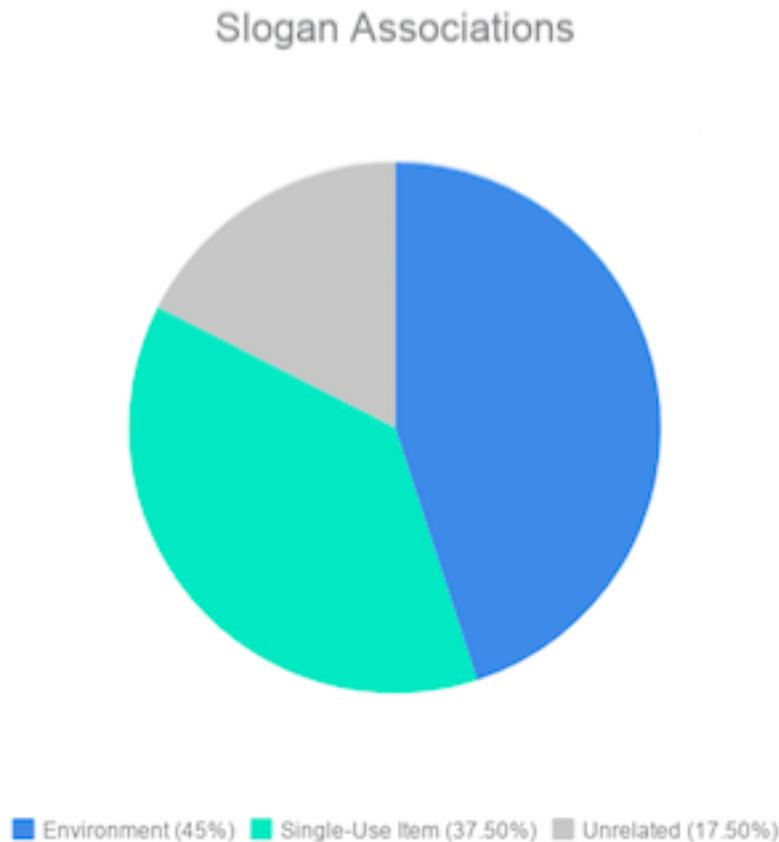
Table 1. Timeline of Activities

Date	Activity
Mar. 1st - 4th	<p>Preparation</p> <ul style="list-style-type: none"><li>• Collected data &amp; facts regarding single-used items’ impact on the environment and society</li><li>• Printed posters for a visual representation of relevant information</li><li>• Collected discarded coffee cups from recycling bins</li><li>• Created 2 dotmocracy posters, where patrons could indicate where they would place themselves on a spectrum according to our questions. Primarily we asked on a scale of 1 to 5, 1 being "I did not know" and 5 being " I do know", where do you place yourself in response to the fact that Vancouverites send 2.6 million coffee cups to the landfill weekly. The second question asked patrons to indicate how often they use a reusable mug, from the options: “never, I don’t have one; never, I always forget;</li></ul>

	<p>never, it's inconvenient; sometimes; often".</p> <ul style="list-style-type: none"> <li>• Made 1 banner with the slogan</li> <li>• Made 1 poster with an open-ended question 'What does "choose to reuse" mean to you', where patrons can record their response on post-it notes or use a sticker to show agreement with existing answers.</li> </ul>
Mar. 6th	<p>Workshop</p> <ul style="list-style-type: none"> <li>• Constructed a coffee-cup pyramid using 65 discarded coffee cups, with 1 reusable mug standing alongside it for comparison.</li> <li>• 4 members talked to patrons and invited them to give us their inputs, while 2 members were responsible for recording both quantitative and qualitative data.</li> </ul>
Mar. 16th	<ul style="list-style-type: none"> <li>• Analyzed the responses received from the open-ended question, and grouped them based on the criteria of effective slogans.</li> </ul>

Each group member obtained a TCPS-2 certificate prior to this project, and used these skills when reaching out to patrons. We introduced ourselves as UBC students and invited them to give us their input on our dotmocracy and open-question posters.

## Results



Background research was conducted to determine what criteria necessitated an effective slogan. After scholarly literature was analyzed, it was found that effective sustainability-related slogans are correlated with ones that are easily comprehensible and encompass good ecological rationale (Hansmann et al., 2009). Based on these findings, we grouped the responses gathered from the open-ended question “What does ‘Choose to Reuse’ mean to you?” into three easily understood categories: “Environment”, “Single-Use Item”, or “Unrelated”, in order to analyze the effectiveness of the slogan.

The “Environment” category encompasses any responses that associated the slogan with general ecological factors such as “sustainability” or “recycle”. The “Single-Use Item” category includes responses that were specific to reducing single-use items, such as “reusing cups”. The “Unrelated” category includes any responses that were not related to either the environment or reducing the use of disposable items, such as “having my personal item with me” (See Appendix A).

Out of the 40 total responses, 37.5% were associated with reducing single-use items as indicated by the teal section of the pie graph, 45% were associated with environmental reasons, and 17.5% were unrelated, shown by the blue and grey sections above.

## **Discussion**

As a part of the Zero Waste 2040 goal, the City of Vancouver is implementing a Single-Use Item Reduction Strategy which focuses on reducing the waste generated by a variety of single-use items, including disposable cups. Promoting behavioural changes in the community is an important component of encouraging sustainable mug use (City of Vancouver, n.d.). An effective slogan could help the City of Vancouver shift from disposable to reusable mugs. A shift towards sustainable cups would positively impact the environment, contributing to a sustainable and just food system (Allen, 2008).

According to our findings, only 37.5% of participants associated the slogan “Choose to reuse” with reducing the use of disposable items. The result signifies that, while the slogan

“Choose to reuse” could be used to remind patrons of the importance of ecological sustainability, it is not effective in communicating a message of specifically decreasing single-use items. Based on the result, the slogan needs to be modified to achieve the intermediate outcome of the project, which is to increase the waste diversion rate at KCC, and the long-term outcome of achieving the Zero Waste goal in the City of Vancouver by 2040.

It should be pointed out, however, that the results might not be fully representative of all the KCC patrons due to a set of limitations. Firstly, collecting the data within just one day and surveying a sample of only 40 patrons provided us with limited data that might not reflect the opinions of the majority of community members. Secondly, the responses could be biased due to the use of a transparent voting concept and face-to-face interactions with participants, which may have influenced their responses. To address the limitations, the data collection time period should be extended to a few weeks to capture the feedback from a wide variety of KCC patrons. In addition, the open-ended question asked could be modified to specifically address the slogan’s ability to motivate KCC patrons to use reusable cups, as such question could generate more specific and quantifiable responses.

## **Conclusion**

Upon completion of our project, it has been shown that, despite the effectiveness of the slogan “Choose to Reuse” with regards to general association of ecological sustainability, it fails to effectively target the reduction of single-use items. We recommend that the slogan be tailored to further emphasize its association with single-use items. Additionally, the association with the slogan and single-use items can be strengthened via the location and context of where the slogan

is displayed. For example, individuals may associate the slogan with reusable mugs if it was displayed outside of a coffee shop.

Our research has provided useful and necessary data for the City of Vancouver and CityStudio in assisting them to determine which slogan best targets the city's single-use item reduction goals, and to what degree. The data from our research can be essential in both the creation and implementation of an effective slogan that targets single-use item reduction. The City of Vancouver may choose to incorporate such slogans as part of their strategy to achieve its Zero Waste 2040 goal.

The implications of our project, that the slogan is beneficial for general ecological sustainability, is critical in understanding its connection to community food security. Community food security holistically encompasses ecologically responsible practices in association with food systems. Thus, the slogan "Choose to Reuse" is beneficial for the ecological pillar of community food security, despite its lack of efficiency to reduce single-use coffee cups.

Due to the limitations of this project, we recommend that further research be conducted by the City of Vancouver in order to determine the effectiveness of an ecological slogan in relation to behavioural attributes and psychological associations.

## Appendix A

Table 1: Responses to "What does 'Choose to Reuse' mean to you?"

<b>Unrelated</b>	<b>Environment</b>	<b>Single-Use Items</b>
A way to counteract systems that support disposable products	Make the earth sustainable	Choose reusable over
Respect the universe	Make the earth sustainable	Use it multiple times; washable
Having my personal item with me	Make the earth sustainable	Everything is reusable
Save the earth to minimize the use of toxic materials that will harm the health of everyone	Conscientious about my role in the environment	Reuse items which can be reused
Look for alternatives, they are always there	Using old stuff as a new product. Not using new raw material to produce the product	Reuse items which can be reused
Look for alternatives, they are always there	Keep the Earth clean	Reuse items which can be reused
Look for alternatives, they are always there	Sustainability	Reuse items which can be reused
	Sustainability	Reusing cups
	Saving environment	Reusable MUGS!!!
	Do your part to help the environment	Reusable MUGS!!!
	Making the conscious decision to complete an act that's beneficial for the environment	Reusable MUGS!!!
	Making the conscious decision to complete an act that's beneficial for the environment	Consuming less; buying previously loved items, buying items that last a long time, reusable mugs, water bottle, cutlery
	Recycle	Consuming less; buying previously loved items, buying items that last a long time, reusable mugs, water bottle, cutlery
	Recycle	To use less paper cups and more reusable mugs
	Recycle	To use less paper cups and more reusable mugs
	Environmental friendly	
	Environmental friendly	
	Environmental friendly	

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## Reflections

### Student 1

During this project, I learned one indicator of waste reduction, which is the diversion rate. Diversion rate is the percentage of waste that is diverted from landfill to recycling, and that links to disposable cups because we often put them into the recycling bins and we are told they can be recycled, but that's not necessarily true.

Paper coffee cups contain virgin cardboard which is essentially 'non-recycled' cardboard. They are used to make single-used cups because a lot of recycled cardboard has ink in, which poses the risk of coming in contact with coffee (Griffiths, T., & Griffiths, T., 2018). In addition, the polyethylene layer makes separating plastic lining from the paper layer difficult (Toor, S., Khan, M., Dhir, N., & Bajwa, A., 2018), bringing challenges for recycling process. Moreover, according to City of Vancouver (2016), single-used items collection cost Canadian government 2.5 million dollars annually, which potentially contribute to the 2.6 million paper coffee cups being sent to landfill every week (Toor, S., Khan, M., Dhir, N., & Bajwa, A., 2018).

Let's go back to our first meeting with our community partners, I learned that soft plastics and paper are sold to China (P. Gagnon, personal communication, January 16, 2019). But giving them to another country isn't the solution for getting rid of waste — that's not the end of waste reduction. I hope they do realize that; otherwise, distributional injustice is formed, and that wouldn't support food sustainability in the world as a whole.

## **Student 2**

The term ‘food justice’ represents "a transformation of the current food system, including but not limited to eliminating disparities and inequities’ that constrain food choices and access to good food for all” (Gottlieb and Joshi, 2010).

At the beginning of this course, the concept of food justice was very abstract to me, and I naturally associated it with food availability and accessibility. However, as the health of our food system is inextricably linked to the health of the environment, I finished the project with a better understanding of how initiatives focused around environmental sustainability contribute to promoting food justice within our community.

Additionally, after working in collaboration with City Studio and The City of Vancouver on this project, I feel like I have developed a better understanding of food justice. I had the opportunity to experience first-hand how groups of innovative people can come together and create positive change in our current food system. I was able to interact not only with my own team members but also with respected organizations and the wider community to address an issue around single-use item waste. I had the opportunity to be a part of the creation, implementation, and assessment of the project and was able to attend HUBBUB, where myself along with my fellow group members presented our activity and findings to elected officials and the wider community. This event provided a space for Vancouver citizens to be heard and our idea to be shared in hopes to create a positive impact within the community.

### **Student 3**

The experience of working in a community setting was beneficial for my understanding of food justice, particularly the procedural domain. At first, it seemed to be unrelated to the project that was based on the ecological aspect of our food system; however, studying the literature on the topic of environmental sustainability and engaging in conversations around the ecological issues with KCC patrons made me realize that the term "food justice" is much broader than I initially imagined. Before this project, to me, food justice was a concept that was somewhat isolated from other areas of a food system. After the project, I understand that it is an integral part of any sustainable food system, and that it is tightly linked with both global and community food security.

Working with the City Studio and the City of Vancouver was a great experience that not only strengthened my understanding of the concepts learned in class, but also provided me with opportunities to grow both personally and professionally. Taking part at HUBBUB allowed us to share our group's findings with other members of the community and to network with like-minded people, passionate about bringing a positive change to our city. Through our participation at HUBBUB, our group had an opportunity to experience the importance of procedural justice first hand, which made us realize that we as students can have a positive influence on our community and together with elected officials create a sustainable and just food system.

#### **Student 4**

When I first started this course I did not even know what food justice was so I would definitely say that my understanding of the issue has changed. Before I started this course I never really thought about the issue. I knew that people of lower income are more prone to food insecurity but I never realised that race and gender played such a big role too. I was really impressed by the lecture about the indigenous people and how food played such a important role in their identity. Before that lecture I never fully realised how important food can be for your identity but that lecture really opened my eyes. I never thought that a part from my identity could be linked to food but after that lecture I started thinking about it and noticed that I also see food from my culture as an important part of who I am and that it would hurt me if I could not express it. I liked that we explored a different issue of food justice each lecture and that we could talk about it in class. There was always something new that I learned during the lectures and I am grateful for that. All in all I think that I have learned a great deal about the issues of food justice.

## **Student 5**

During my four years at UBC, this has been my first Community Based Experiential Learning experience. I have learned a lot of information regarding single use items, diversion rates, recycling and much more. However, these facts are not what I found most valuable. Instead, the opportunity to expand my education outside of a lecture setting, in the “real world” has been incredibly rewarding. I have learnt the importance of communication specifically, making sure that our understanding of what is expected aligns with our community partners expectations. During our infographic presentation, Paul discussed with my team how content he was with our second meeting. Both our group and the other LFS 350 group who worked with our community partners attended this meeting. During this meeting we bounced ideas off each other with regards to the execution of our projects and openly discussed what the community partners hope to gain from our project. This meeting was so successful that Paul told us they will be holding the meetings with both groups together from here on out. This meeting is used as an example to stress the importance of open communication, collaboration and teamwork, in order to establish successful outcomes for all parties involved. Amongst many other factors, I have also gone on to learn the importance of discipline, especially in regards to email correspondence, accountability to yourself and more important your team and your community partners and lastly passion. I believe this project was a huge success for our team, because we all started this project with a very high degree of passion towards what we were doing, how we were going to do it and what we were going to gain from this experience. This CBEL project has immensely strengthened my hard skills, just like most of my lecture based courses have. However, more importantly, it has strengthened my soft skills and provided me with the confidence to know I am able to submerge myself in ‘real world’ work.

## **Student 6**

Prior to taking this course, I had very little knowledge of food justice. Although the first lecture allowed me to gain a broad idea of the term, I still had a hard time understanding the relevance between our project and the concept of food justice. The process of achieving food justice involves working towards a change in our current food system. As the health of our environment is closely interconnected to the balance and health of our food system, I realized that the focus of our project on the environmental pillar of the food system did indeed contribute to the effort of addressing food security issues in our community, and therefore food justice as well.

On top of the lectures in this class, I found the Community Based Experiential Learning aspect of this course to be highly rewarding. Having the opportunity to take part in HUBBUB allowed me to realize how much our voices as students matter. This event, organized by the City and CityStudio, allowed me and my group to partake in a space where various community members gathered, from community elders, to elected council members, to like-minded and innovative peers. Not only was this a stimulating and inspiring experience, but it has also empowered me in a sense that I see now how larger changes in our food system can be influenced and brought about by our own voices and actions in the community.