

University of British Columbia

Social Ecological Economic Development Studies (SEEDS) Sustainability Program

Student Research Report

# Student Perspectives on Participating in a Campus-Wide Container Sharing Program

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Prepared for:

Course Code: PSYC 421

University of British Columbia

Date: 13 April 2021

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## **Student Perspectives on Participating in a Campus-Wide Container Sharing Program**

SEEDS Spreaders

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April 13, 2021

### **Abstract**

As society is recognizing the presence of the climate crisis, zero waste initiatives are of utmost importance for the University of British Columbia to implement. As per UBC's goal to be zero waste by 2030, this study investigates what factor among five (hygiene, transparency, cost, social influence, and convenience) is the most important in increasing students' willingness to participate in a campus-wide container sharing program. One hundred and sixty-nine participants completed a Qualtrics survey distributed through convenience sampling and consisted of a 5-point Likert scale, multiple-choice and open-ended questions. We hypothesized social influence would be the most important factor, but our results led us to retain our hypothesis. The self-report data revealed that hygiene is the most important factor, followed by transparency, convenience, cost, and social influence. These results suggest that UBC should ensure the proper cleaning of containers in their proposed container sharing program. Our findings may have been impacted by a change in behaviour and attitudes due to the COVID-19 pandemic. Future research should explore the evolving role hygiene might have in other zero-waste initiatives that entail the sharing of products.

## **Introduction**

To combat the climate crisis, the Alma Mater Society (AMS) of the University of British Columbia (UBC) has partnered with the Climate Friendly Food Systems Committee to plan the launch of a campus-wide container sharing program. This proposed campus-wide container sharing program will take inspiration from an existing reusable container sharing program that is currently available to first-year students living on residence, Green2Go. Reducing waste through reusing items has been found to be very beneficial for the environment, more so compared to recycling (Ertz et al., 2017). Before implementing such a program, it is important to know what consumers value in order to increase and maintain participation. Thus, the purpose of this study is to find out about student perspectives surrounding a campus-wide container sharing program, specifically what factors might impact willingness to participate in such a program.

We anticipated four factors that might influence one's willingness to participate in a zero-waste initiative: convenience, cost, hygiene, and social influence. Based on a preliminary literature review, social influence is the most recurring factor cited in psychological studies examining sustainable consumer behaviours. Ertz and colleagues (2017) based their research surrounding what would influence consumers to adopt reusable containers on the Theory of Planned Behaviour. The researchers found that subjective norms can predict one's intention and thus future behaviour of consuming reusable containers (Ertz et al., 2017). However, this study only focuses on the intention, which does not always guarantee the behaviour to happen. Dorn and Stöckli (2018) observed restaurant-goers' behaviour of using a reusable takeaway container or not. They manipulated the presence of social norms through signage at the restaurant. On the other hand, social modelling was measured by simply observing purchasing behaviour when other customers were around. They found that social modelling, but not social norms, increased the use of reusable takeaway food containers (Dorn & Stöckli, 2018). Zorell (2020) found that the effectiveness of nudges is reduced by unconscious social mimicking. Additionally, Green and Peloza (2014) conducted three studies testing the effectiveness of self-benefit versus other-benefit framing (e.g., receiving a discount versus helping the planet) of advertisements when promoting a sustainable product. The researchers consistently found evidence that the setting of each type of benefit framing matters in influencing behaviour. People are more likely to act sustainably when an advertisement highlighting other-benefits is placed in a public space (Green & Peloza, 2014).

In terms of the other factors we anticipated would impact willingness to participate, fewer studies have been found to support their influence on sustainable behaviour. Nonetheless, convenience was found to have mediated one's intentions to act sustainably in the previously mentioned study by Ertz and colleagues (2017), where perceived behavioural control (i.e., the ease or difficulty of a behaviour) also influenced intention. Shortening the distance needed to get to recycling bins (Oliphant et al., 2020) and collection bins (Jiang et al., 2020) has been found to be of some importance in increasing sustainable behaviour. The factor of cost was found to influence sustainable behaviour when it was framed as having to pay for an item (i.e., loss framing) rather than receiving a discount (i.e., gain framing) (Poortinga & Whitaker, 2018). Jiang and colleagues (2020) also found that merchants and consumers alike valued lower prices when opting for a reusable takeaway container. In addition to cost, hygienic status of the takeaway containers was also important for consumers (Jiang et al., 2020).

### **Psychological Insight**

Our research targets the influence of low motivation. According to the Theory of Planned Behaviour (Ertz et al., 2017), subjective norms, or one's perception of what others think and/or

do, influences a person's intention to behave a certain way. While having the intention does not necessarily lead to behaviour, there is a strong link between the two. Thus, it would make sense that people are more willing to do, or say they will do something, based on what they think other people would do as well.

## **Research Question & Hypothesis**

### **Research Question**

This study will explore the question: What is the most important factor in increasing students' willingness to participate in a campus-wide container sharing program?

### **Hypothesis**

In alignment with our literature review, we hypothesize that social influence will be the most important factor, followed by convenience, cost, and hygiene of students' willingness to participate in campus-wide container sharing program. Since our research was the first to examine the ranking of importance of these factors, we devised our hypothesis based on how many studies in our literature review investigated each factor. Given that we found the most studies investigating the role of social influence, we hypothesized this to be the most important factor.

## **Methods**

### **Participants**

Based on the power analysis of 0.8 and effect size of 0.25, we aimed to recruit 180 UBC participants in order to obtain a statistically significant result. We distributed the survey through convenience sampling, such as posting on our personal social media platforms, class discussion forums, as well as direct contact. We collected 188 responses and after excluding 19 incomplete responses, were left with valid data from 169 participants aged 18-40 years old. ( $M = 21.67$ ,  $SD = 2.66$  years) (See Appendix H, Table 1). Of our participants, 108 identified as female, 49 as male, 5 as non-binary/third gender, 5 preferred not to say and 2 did not report their gender identity (See Appendix H, Table 3). Our participants identified as White/Caucasian (26.67%) and East Asian (26.06%), some combination of the ethnic identities provided (20%), Southeast Asian (13.3%), South Asian (6.67%), African American (3.03%), Middle Eastern (1.82%), Hispanic (1.21%), Indigenous (0.61%), and Eastern European (0.61%) (See Appendix, Table 4).

### **Conditions**

We did not assign our participants to any conditions in the study we conducted. We conducted a non-experimental, within-subjects design, which originally consisted of four independent variables: convenience (i.e. container size, preferred locations), hygiene concerns (i.e. cleanliness of product, current health conditions), cost (i.e., annual membership cost, discounts), and social influence (i.e., peer behaviour, context). Upon reflection with Dr. Jiaying Zhao, we added transparency as a fifth independent variable (i.e., public knowledge of cleaning actions taken). The dependent variable was the rating of importance of each independent variable in willingness to participate in a campus-wide container sharing program.

### **Measures**

Our dependent measure was used to measure the scale of the importance of the independent variables we predicted in our hypothesis. We devised our own survey question asking, "*How important is \_\_\_\_\_ in your willingness to participate in a campus-wide container sharing program?*" Participants were asked to rate the importance of each independent variable on a five-point Likert scale, with *Extremely important* coded as 5 and *Not at all important* coded as 1 (See Appendix A). We used this survey question as the dependent measure because it

concisely addresses our dependent variable and aims to answer our research question. Our survey question fulfills multiple types of validity such as content, face, predictive, and discriminant validity.

### **Procedure**

To comply with the Provincial Health Orders, we were restricted to conducting and distributing the self-report questionnaire remotely using Qualtrics. We began data collection on March 6<sup>th</sup>, 2021 and closed the survey on March 30<sup>th</sup>, 2021. Participants accessed the survey through a link distributed through our social networks, UBC discussion boards, forums, and contacting people directly. The survey took approximately five minutes to complete. After consenting to participate, free from remuneration, subjects were required to respond to 15 counterbalanced survey questions, that entailed preference and behaviour questions regarding reusable container usage and optionally four demographic questions (See Appendix A). Our survey consisted of five 5-point Likert scale questions, four multiple-choice questions, and two open-ended text-box style questions (See Appendix A). Qualtrics was automatically set to record responses one week after a respondent's last activity. This function led to 19 incomplete responses being excluded from data analysis. Although conducting the survey remotely facilitated our ability to reach out to more subjects, a challenge was that we could not oversee participants filling out and fully comprehending that they should respond to every survey question, except the demographics, to decrease the dismissed participant results. Another challenge encountered was having to include a fifth independent variable post-data collection. Once we consulted with Dr. Zhao, we adjusted our analyses to include transparency as a separate measure from hygiene.

### **Results**

We collected 188 responses and after excluding 19 incomplete responses, were left with valid data from 169 participants. Three different statistical analyses were conducted in order to test our hypothesis. First, a one-way repeated measures ANOVA was conducted to determine whether there is a difference between the independent variables (see Appendix C). The ANOVA revealed that there were statistically significant differences between the independent variables ( $F(4, 168) = 143.42, p < 0.001$ ). In order to find out which independent variables were statistically different from each other, a Post Hoc test was conducted (see Appendix D) and revealed that all the differences between each independent variable were statistically significant. Participants rated hygiene ( $M = 4.66, SD = 0.63$ ) as the most important factor in increasing willingness to participate in a campus-wide container sharing program, followed by transparency ( $M = 4.41, SD = 0.89$ ), convenience ( $M = 4.11, SD = 0.86$ ), cost ( $M = 3.40, SD = 1.00$ ) and social influence ( $M = 2.70, SD = 1.25$ ) (See Appendix C, Table 3).

### **Exploratory Analyses**

In addition to the ANOVA, a correlation was conducted in order to test whether any of the independent variables were related. A moderate correlation was observed between hygiene and transparency ( $r = 0.54, p < 0.001$ ) and a weak correlation was observed between convenience and hygiene ( $r = 0.28, p < 0.001$ ) (see Appendix E). Further, a one-way ANCOVA was conducted to analyze the possible interaction demographic variables have with our results. The ANCOVA revealed that our results were no longer significant ( $F(4, 158) = 0.76, p = 0.55$ ) after adjusting for age and gender (See Appendix F, Table 1). However, we found that within-subjects, gender had a significant interaction with our results ( $F(4, 158) = 2.56, p = 0.037$ ) while age does not ( $F(4, 158) = 0.60, p = 0.66$ ) (See Appendix F, Table 1). We also found that age had a significant interaction with our results between-subjects ( $F(1, 158) = 4.47, p = 0.036$ ) while

gender does not ( $F(1, 158) = 0.04, p = 0.84$ ) (See Appendix F, Table 2). We also collected qualitative data which supplement our findings (See Appendix G).

### Discussion

The aim of this study was to determine what the most important factor is in increasing students' willingness to participate in a campus-wide container sharing program. Our results reveal that hygiene is the most important factor, followed by transparency, convenience, cost, and social influence. We found a moderate positive correlation between hygiene and transparency and a weak positive correlation between convenience and hygiene. This means that transparency and convenience are related to hygiene, albeit the strength of the relationships are not strong. After adjusting for age and gender, our results were no longer significant. However, gender significantly interacted with our results within-subjects and age significantly interacted with our results between-subjects. This suggests that demographic variables interacted with our results and thus would be valuable to further explore in future research.

Our hypothesis that social influence would be the most important factor was not supported. This may be due to a few reasons, but mainly that attitudes and behaviours amongst individuals may have altered due to the COVID-19 pandemic. Perhaps heightened anxiety surrounding the contagious nature of the COVID-19 virus caused the outcome of hygiene to be the most important factor to participants. Thus, a program that entails using a container that has been used by others may not sound appealing at this time. Ertz and colleagues (2017) describe this phenomenon as the "laws of sympathetic magic," where if there are signs of use on a product, a consumer is less likely to use that product. Relating this back to the results of our study, students may perceive that the containers contain more miniscule signs of contamination, such as germs, instead of dents and stains. Overall, our results suggest that if a campus-wide container sharing program were to be implemented post-COVID, the hygienic status of the containers would be an especially important aspect of the program to address.

Despite our significant results, our study does come with limitations. The first flaw within our methods is that we only loosely defined each independent variable by its label and therefore did not account for subjective interpretations. A number of the open-ended responses we received when asking what additional factors would increase alacrity to participate, were similar to our independent variables (e.g., convenience and receiving a discount. See Figure G2). This shows that participants might have felt that our survey question encompassed their idea of what is expected rather than what is wanted. Second, not accounting for cultural differences may have affected our results. Ertz and colleagues (2017) found cross-cultural differences among Westerners and Asians when exploring the influence of attitudes, context and motivation on intentions to behave sustainably. Thus, if we were able to run this study again, we would account for the influence of culture by manipulating factors that have been found to differ between them, such as context. UBC is a large academic institution composed of a majority of international students, originating from various individualistic and collectivistic cultures. This may lead to the possibility of discrepancies in interpretation of our independent variables. Finally, our results might impede the positive environmental impact this program is intended to make. It is important to consider the actual environmental impact this program would have if good hygienic status of the containers were to be addressed through a thorough cleaning process. Gallego-Schmid and colleagues (2018) found that the washing/cleaning of plastic and glass reusable containers has negative environmental impacts due to the electricity and natural gas needed to power dishwashers and handwashing, respectively. The researchers also found that using more eco-

friendly dishwashers or improving handwashing techniques would yield a greater impact than other solutions evaluated (Gallego-Schmid et al., 2018). Thus, if UBC were to take heed of the results of our study, it would be important to consider what resources they would use to establish a good cleaning system while not causing more harm to the environment than was intended to avoid. Another way a container sharing program could counter the positive environmental impact initially set out to be achieved is through the number of uses each container undergoes in its useful life. One study found that reusable cups must be used a minimum of ten times in order to minimize environmental benefit over that of single-use cups (Garrirido et al., 2007). In contrast, Gallego-Schmid and colleagues (2017) discuss that increased usage of reusable containers does not necessarily create a more positive impact, again, due to the environmentally taxing demands of the washing/cleaning process.

A principal takeaway from our findings is that human wellbeing and environmental sustainability must be equally considered in order to induce an effective program. While hygiene ranked the most important factor, it is important to also consider the environmental impact of the cleaning process. Zero-waste initiatives should maintain the positive environmental impact they set out to make. As such, it is reasonable to assume human benevolence alone will not address the short-term futility of a container sharing program. Future research should explore further the role of hygiene in zero-waste initiatives, especially in a post-pandemic world.

### **Recommendations to our client**

By determining hygiene and transparency as the most important in comparison to social influence, these are beneficial aspects for UBC to consider when establishing this program. We recommend implementing an effective and efficient cleaning process policy for the containers used. We asked additional questions in our survey about the preferred cost of membership, size of the container and additional factors to increase willingness (See Appendix G). When asked specifically what other factors might increase their willingness to participate, one participant expressed their concern over “whether the containers have contained foods that don't comply with [their] my cultural preference,” specifically referring to Halal. Clients should note that students may lack education on the current cleaning processes of large institutions like UBC. We advise that UBC communicates and informs students of their implemented container cleaning policy. A visual demonstration of the waste reduction or impact that one student could make by participating in the program is strongly advised to increase participation. Based on our findings, we recommend clear guidelines for students’ regarding COVID safety practices when approaching the pick-up and drop-off stations. Having clear spatial markings if there is a lineup at busy hours at the pick-up and drop-off station with a sanitization option beside would increase students’ safety. Finally, as students will be returning to campus after the COVID-19 pandemic is managed, the stress and emphasis on hygiene may carry over and persist, shifting students’ attitudes towards reusable items. Velikonja and colleagues (2020) found a positive correlation between COVID/germ anxiety subjects to take higher preventative measures in their lifestyle. The pandemic’s state is essential to keep in mind as students’ participation in the program will increase if the cases are what the government considers to be low. Our project contributions are relevant to UBC since implementing a reusable container sharing program post-COVID is difficult to navigate but, our results create clarity and demonstrate what students want out of this potential program.



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## Appendix A

### Qualtrics Survey

UBC AMS is hoping to launch a new campus-wide container sharing program in order to encourage sustainable behaviour among students. The program is aimed to reduce the use of single-use take-out containers on campus.

Please answer the following questions as if we are all back on campus post-COVID.

How important is it to you that the university is transparent about their cleaning/sanitization process with reusable containers?

- Extremely important
- Very important
- Moderately important
- Slightly important
- Not at all important

How important is hygiene/cleanliness/sanitization of the reusable containers in your willingness to participate in a campus-wide container sharing program?

- Extremely important
- Very important
- Moderately important
- Slightly important
- Not at all important

How much money, between \$0-\$20, would you be willing to spend on an annual campus-wide container sharing program membership fee?

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How important is the cost of the membership in your willingness to participate in a campus-wide container sharing program?

- Extremely important
- Very important
- Moderately important
- Slightly important
- Not at all important

What size would you prefer for a campus-wide container sharing program?

- Small (can fit one side dish)
- Medium (can fit one entrée)
- Large (can fit one entrée + one side dish)

How important is convenience in your willingness to participate in a campus-wide container sharing program?

- Extremely important
- Very important
- Moderately important
- Slightly important
- Not at all important

What buildings on campus would you like to see pick up/drop off stations for the containers?  
(Select all that apply)

- Libraries (e.g. IKB, Koerners, Woodward)
- Social spaces (e.g. The Nest, LIFE)
- Residential cafeterias (e.g. The Point, Open Kitchen)
- Ponderosa (Mercante, Harvest)
- Buchanan Block
- ANSO (Anthropology and Sociology building)
- Sauder
- Forestry/Engineering
- Other \_\_\_\_\_

How important is social influence (i.e. your friends participating) in your willingness to participate in a campus-wide container sharing program?

- Extremely important
- Very important
- Moderately important
- Slightly important
- Not at all important

What other factors would influence you to participate in a campus-wide container sharing program?

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Demographics

How old are you?

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What is your gender identity?

- Male
- Female
- Non-binary / third gender

- Prefer not to say
- Other

What is your current year standing at UBC?

- Undergrad (1st Year)
- Undergrad (2nd Year)
- Undergrad (3rd Year)
- Undergrad (4th Year +)
- Grad School

What ethnicity do you identify with? Select all that apply.

- Black/African American
- Eastern European/Russian
- Indigenous
- Hispanic
- Middle Eastern/North African
- East Asian
- South Asian
- Southeast Asian
- White/Caucasian
- Other (Please Specify) \_\_\_\_\_

## Appendix B

### Contribution of Each Team Member

The workload of completing the Research proposal was divided as follows: Tamara wrote the research question, hypothesis and psychological insight, Joselle wrote the background literature and statistical analysis, Kirstie wrote the conditions, Stefany wrote the measures and Maxime wrote the participant sample and sample size with anticipated outcomes. All group members worked together to create the research question and hypothesis. As a collaborative effort, we all conducted a literature review of relevant articles, references and wrote the survey questions.

For the Proposal Approval Meeting, all group members were prepared and integrated feedback. We all went into depth on the survey revision and refining our research question. As for the Progress Check-in Meeting, all group members were prepared with a verbal report. We all expressed the challenges we faced and how we planned to address them. We explained our plans for the data analysis and asked for the help needed regarding the data analysis.

The Research Project Presentation slides and the verbal report were completed as follows: Kirstie worked on and presented “Project Introduction” and “Research Question & Hypothesis,” Maxime worked on and presented “Demographics” and “Limitations,” Stefany worked on and presented “Independent Variables” and “Dependent Variables.” Tamara worked on and presented the “Study Measures” and “Results” and Joselle Fernando worked on and presented “Result’s Practical Implications” and “Client recommendations”.

The workload distribution in writing this paper was as follows: the “Introduction” section was written by Joselle, the “Methods” section was written by Kirstie, the “Results” section was written by Tamara and Joselle. The “Discussion” section was a collaborative effort between Tamara, Joselle, and Maxime, and “Recommendations for Your UBC Clients” was a collaborative effort between Stefany, Tamara and Kirstie. The “Abstract” was done by Joselle, Tamara, and Kirstie and the “Appendix” was organized and done by Joselle, Tamara, and Kirstie. Lastly, all authors were involved in the final revision of all sections of the paper.

## Appendix C

### ANOVA of Independent Variables

**Table C1**

*Within Subjects Effects*

<b>Cases</b>	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>p</b>	<b><math>\eta^2_p</math></b>
Factors	432.350 <sup>a</sup>	4 <sup>a</sup>	108.088 <sup>a</sup>	143.420 <sup>a</sup>	< .001 <sup>a</sup>	0.461
Residuals	506.450	672	0.754			

*Note.* Type III Sum of Squares

<sup>a</sup> Mauchly's test of sphericity indicates that the assumption of sphericity is violated ( $p < .05$ ).

**Table C2**

*Between Subjects Effects*

<b>Cases</b>	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>p</b>
Residuals	243.586	168	1.450		

*Note.* Type III Sum of Squares

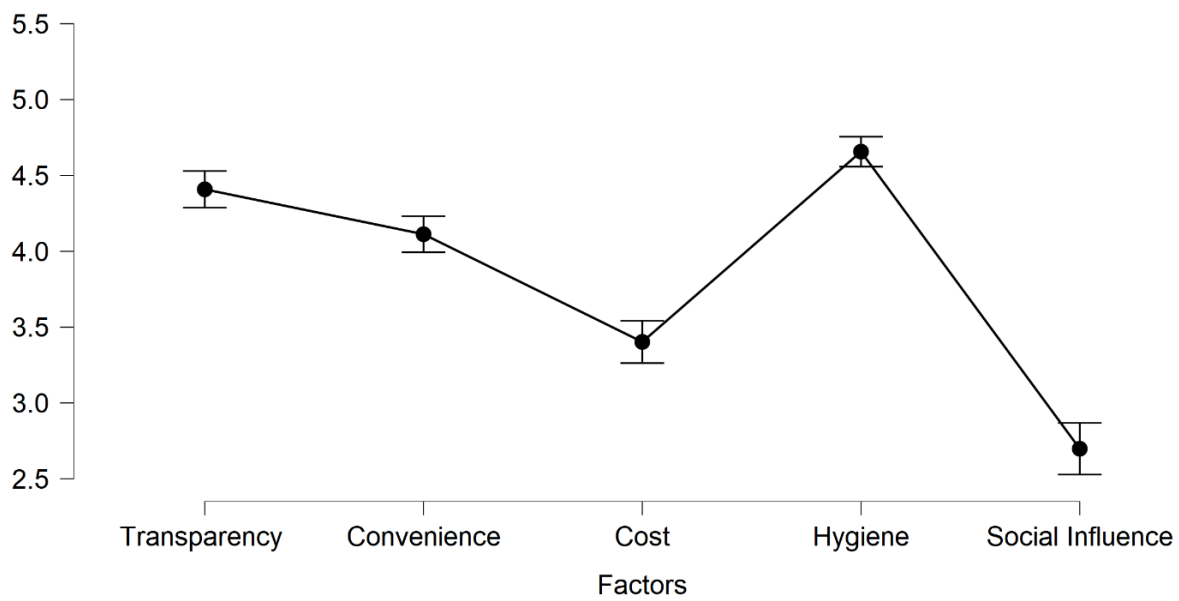
**Table C3**

*Descriptive Statistics for Independent Variables*

<b>Factors</b>	<b>Mean</b>	<b>SD</b>	<b>N</b>
Convenience	4.112	0.855	169
Cost	3.402	0.996	169
Hygiene	4.657	0.627	169
Social Influence	2.698	1.248	169
Transparency	4.408	0.889	169

**Figure C1**

*Scatter Plot of Mean Score for Independent Variables*





## Appendix D

### *Post Hoc Comparisons - Factors*

		<b>Mean Difference</b>	<b>SE</b>	<b>t</b>	<b>p holm</b>
Transparency	Convenience	0.296	0.094	3.133	0.004
	Cost	1.006	0.094	10.651	< .001
	Hygiene	-0.249	0.094	-2.632	0.009
	Social Influence	1.710	0.094	18.107	< .001
Convenience	Cost	0.710	0.094	7.519	< .001
	Hygiene	-0.544	0.094	-5.764	< .001
	Social Influence	1.414	0.094	14.975	< .001
Cost	Hygiene	-1.254	0.094	-13.283	< .001
	Social Influence	0.704	0.094	7.456	< .001
Hygiene	Social Influence	1.959	0.094	20.739	< .001

*Note.* P-value adjusted for comparing a family of 10

## Appendix E

### *Pearson's Correlations*

<b>Variable</b>		<b>Transparency</b>	<b>Hygiene</b>	<b>Cost</b>	<b>Convenience</b>	<b>Social influence</b>
1. Transparency	Pearson's r	—				
	p-value	—				
2. Hygiene	Pearson's r	0.541	—			
	p-value	< .001	—			
3. Cost	Pearson's r	0.082	-0.025	—		
	p-value	0.288	0.743	—		
4. Convenience	Pearson's r	0.182	0.283	0.226	—	
	p-value	0.018	< .001	0.003	—	
5. Social influence	Pearson's r	0.117	0.042	0.223	0.104	—
	p-value	0.130	0.589	0.004	0.176	—

## Appendix F

### One-Way ANCOVA Results with Age and Gender as Covariates

**Table F1**

*Within Subjects Effects*

<b>Cases</b>	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>p</b>
RM Factor 1	2.254 <sup>a</sup>	4 <sup>a</sup>	0.564 <sup>a</sup>	0.757 <sup>a</sup>	0.554 <sup>a</sup>
RM Factor 1 * Age	1.799 <sup>a</sup>	4 <sup>a</sup>	0.450 <sup>a</sup>	0.604 <sup>a</sup>	0.660 <sup>a</sup>
RM Factor 1 * Gender	7.634 <sup>a</sup>	4 <sup>a</sup>	1.909 <sup>a</sup>	2.564 <sup>a</sup>	0.037 <sup>a</sup>
Residuals	470.504	632	0.744		

*Note.* Type III Sum of Squares

<sup>a</sup> Mauchly's test of sphericity indicates that the assumption of sphericity is violated ( $p < .05$ ).

**Table F2**

*Between Subjects Effects*

<b>Cases</b>	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>p</b>
Age	6.580	1	6.580	4.472	0.036
Gender	0.061	1	0.061	0.041	0.839
Residuals	232.493	158	1.471		

*Note.* Type III Sum of Squares

## Appendix G

### Qualitative data

*Note.* Four questions featured in the questionnaire provided additional qualitative information to provide more information for our client. Our study revealed that 67.46% of participants prefer a medium sized container, as described as fitting ‘one entrée’. Next, 30.18% of participants demonstrated a preference for a large container, described as fitting ‘one entrée and a side dish’. Lastly, 2.37% of participants prefer a small container that could only fit ‘one side dish’ (See Table G1).

The second question asked about preferred cost for annual membership. Participant responses ranged from zero dollars to \$20 ( $M = 8.67$ ,  $SD = 5.409$ ) (See Table G2).

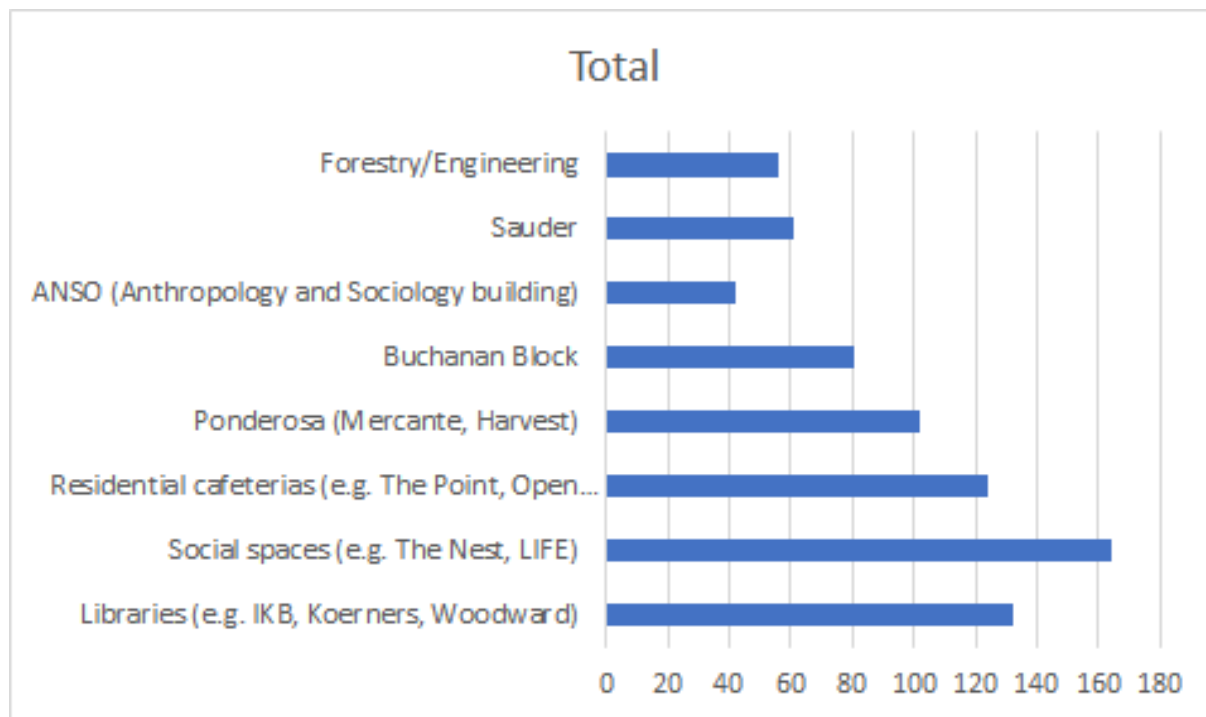
The third question asked what building location students preferred drop-off locations to be stationed at. Social spaces were the most supported option, followed by libraries and residential cafes (See Figure G1).

Lastly, we asked what additional factors would influence willingness to participate in the campus-wide container sharing program from which we received a range of responses. After disregarding unusable/inappropriate comments, we grouped and tallied the number of times certain factors were mentioned. The most common responses were related to convenience and campus-wide participation with 40 mentions; followed by 14 mentions about portability/design of the containers, 10 suggestions for a discount on uses, 9 comments concerned wanting to know the programs impact on the community, 7 mentions about environmentalism/transparency, 6 comments about hygiene/allergy concerns, and 5 notes on cost anxiety (See Figure G2).

**Table G1**

*Frequencies for Preferred size*

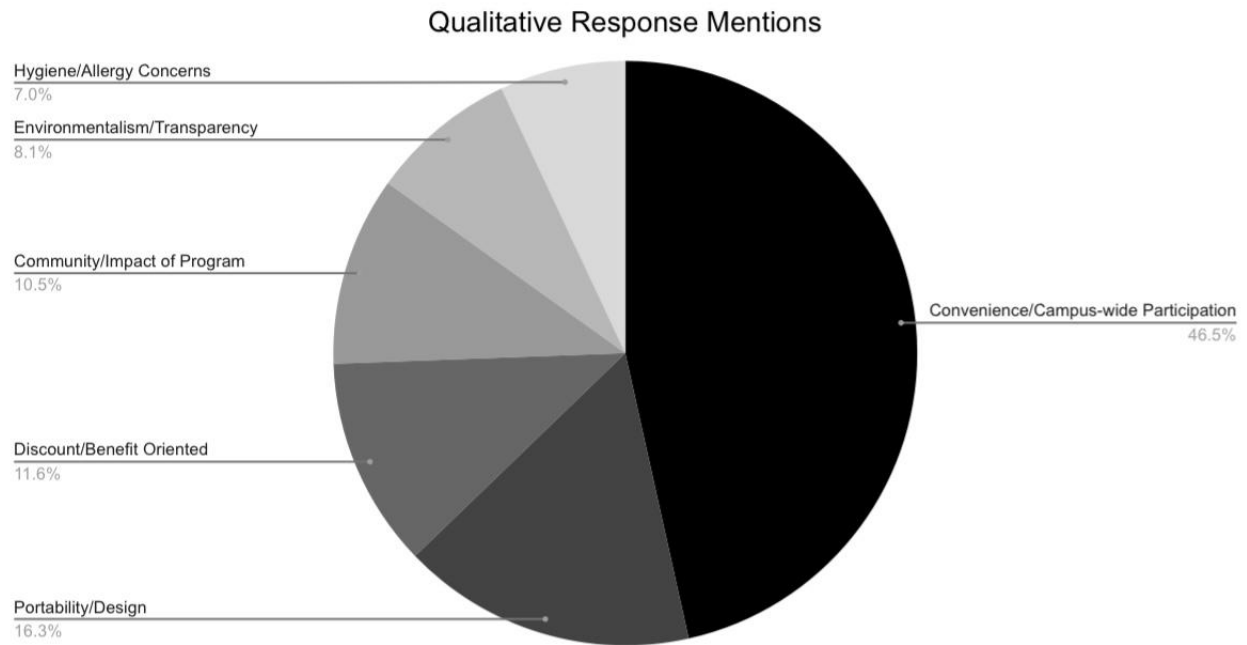
Preferred size	Frequency	Percent	Valid Percent	Cumulative Percent
Large (can fit one entrée + one side dish)	51	30.178	30.178	30.178
Medium (can fit one entrée)	114	67.456	67.456	97.633
Small (can fit one side dish)	4	2.367	2.367	100.000
Missing	0	0.000		
Total	169	100.000		

**Figure G1***Building Location Preferences***Table G2***Preferred cost of membership*

<b>Preferred cost of membership</b>	
Valid	169
Missing	0
Mean	8.657
Std. Deviation	5.409
Minimum	0.000
Maximum	20.000

**Figure G2**

*Pie Chart of Most Common Responses When Asked “What Other Factors May Increase Students’ Participation in a Campus-Wide Container Sharing Program?”*



## Appendix H

### Demographics

**Table H1***Frequencies for Age*

	<b>Age</b>
Valid	162
Missing	7
Mean	21.673
Std. Deviation	2.670
Minimum	18.000
Maximum	40.000

**Table H2***Frequencies for Year Standing*

<b>Year</b>	<b>Frequency</b>	<b>Percent Valid</b>	<b>Percent Cumulative</b>	<b>Percent</b>
Grad School	13	7.692	7.784	7.784
Undergrad (1st Year)	7	4.142	4.192	11.976
Undergrad (2nd Year)	27	15.976	16.168	28.144
Undergrad (3rd Year)	47	27.811	28.144	56.287
Undergrad (4th Year +)	73	43.195	43.713	100.000
Missing	2	1.183		
Total	169	100.000		

**Table H3***Frequencies for Gender*

<b>Gender</b>	<b>Frequency</b>	<b>Percent Valid</b>	<b>Percent Cumulative</b>	<b>Percent</b>
Female	108	63.905	64.671	64.671
Male	49	28.994	29.341	94.012
Non-binary / third gender	5	2.959	2.994	97.006
Prefer not to say	5	2.959	2.994	100.000
Missing	2	1.183		
Total	169	100.000		

**Table H4***Frequencies for Ethnicity*

<b>Ethnicity</b>	<b>Frequency Percent</b>		<b>Valid Percent</b>	<b>Cumulative Percent</b>
Black/African American	5	2.959	3.030	3.030
Black/African American,White/Caucasian	1	0.592	0.606	3.636
East Asian	43	25.444	26.061	29.697
East Asian,Southeast Asian	1	0.592	0.606	30.303
East Asian,White/Caucasian	11	6.509	6.667	36.970
Eastern European/Russian	1	0.592	0.606	37.576
Eastern	1	0.592	0.606	38.182
European/Russian,Hispanic,White/Caucasian	1	0.592	0.606	38.182
Eastern European/Russian,Middle Eastern/North African,White/Caucasian	2	1.183	1.212	39.394
Eastern European/Russian,White/Caucasian	1	0.592	0.606	40.000
Hispanic	2	1.183	1.212	41.212
Hispanic,White/Caucasian	2	1.183	1.212	42.424
Indigenous	1	0.592	0.606	43.030
Indigenous,White/Caucasian	1	0.592	0.606	43.636
Middle Eastern/North African	3	1.775	1.818	45.455
Middle Eastern/North African,South Asian	1	0.592	0.606	46.061
Middle Eastern/North African,White/Caucasian	2	1.183	1.212	47.273
Other (Please Specify)	2	1.183	1.212	48.485
South Asian	11	6.509	6.667	55.152
South Asian,Southeast Asian	1	0.592	0.606	55.758
South Asian,White/Caucasian	2	1.183	1.212	56.970
Southeast Asian	22	13.018	13.333	70.303
Southeast Asian,Other (Please Specify)	1	0.592	0.606	70.909
Southeast Asian,White/Caucasian	3	1.775	1.818	72.727
White/Caucasian	44	26.036	26.667	99.394
White/Caucasian,Other (Please Specify)	1	0.592	0.606	100.000
Missing	4	2.367		
Total	169	100.000		