

Put Waste in its Place - The Zero Waste Station Challenge

University of British Columbia

LFS 350

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The purpose of this project was to assist CityStudio (a community innovation hub) and the City of Vancouver in evaluating waste sorting accuracy at Yaletown Roundhouse Community Centre, before and after the introduction of new decals (see Figures 3-5). Historically known as Vancouver's industrial district, Yaletown has developed into one of the most contemporary areas to reside and is home to many young adults and families (Lynch, 2016). The community centre is across from Elsie Roy Elementary and a block from the skytrain, making it a popular recreational location for students and residents. The centre is already equipped with waste sorting signs but the city recognizes room for improvement (Gagnon, P, personal communication, September 21, 2016). As such, the decals were designed by previous LFS 350 students to improve waste sorting accuracy in city-owned buildings. This project is significant because the city does not want to spend valuable resources implementing the decals without a trial (P. Gagnon, personal communication, September 21, 2016). This project helped determine whether the decals improved waste sorting accuracy and will ultimately aid in the city's decision of implementation.

This project is part of a larger action plan which aims to make Vancouver the greenest city (City of Vancouver, 2012). However, the economic, environmental, and social significance of waste diversion expands far greater. Diverting waste reduced costs because collection of recycling and organics is less costly than garbage (Gagnon, P, personal communication, September 21, 2016). Correct use of waste stations also addresses larger global crises such as global warming because organics in landfills contribute to greenhouse gas emissions (Climate Change and Waste, 2014). Lastly, organic waste relates to the social implications of Canada's

food waste habits. When 5% of children and 8% of adults in Canada were food insecure from 2007-2012, it is ironic that Canadians wasted about a third of the food they bought (Human Activity and the Environment: Annual Statistics, 2015; Roshanafshar, S., & Hawkins, E., 2015). This project, although specific to one community centre, opens discussions of broader issues regarding financial strategy, environmental sustainability, and food security.

Through this project, we worked collectively with community members to generate ideas on how to improve waste diversion - a process discussed in class termed community development (PeerNetBC, 2012). This project had two main objectives aimed to address knowledge gaps about waste diversion:

1. To determine the effectiveness of new decals on waste sorting at the Roundhouse Community Centre.
2. To identify which waste items are frequently sorted correctly and incorrectly at the Roundhouse Community Centre.

This project aimed to address the following inquiry questions:

1. Do the new decals influence the effectiveness of waste diversion at Roundhouse Community Centre?
2. Which waste items are frequently sorted correctly and incorrectly at Roundhouse Community Centre?
3. What do Yaletown community members think about the current waste stations and about the new decals?

Methods

Data Collection

Three naturalistic observations were conducted before, immediately after, and two weeks after the introduction of new decals on October 6th, 25th, and November 10th. The observations took place between 12-1 pm to coincide with Elsie Roy's lunch hour. Samples size included all individuals who used the observed station during the hour. Participants were categorized into two groups, adults (A) and children or youth (C), to determine if the decals were efficient at targeting children because they frequently use the community centre (Gagnon, P, personal communication, September 21, 2016). Percent correctness of sorting for each participant was recorded (see Appendix A). In addition, the amount each item was sorted correctly and incorrectly was noted (see Appendix B). Lastly, three or more interviews were conducted during each observation (see Appendix A).

Data Analysis

Percent correctness of waste sorting for each participant was calculated (see Appendix A). The percentages for adults and children/youth were compared before, during, and after the addition of the new decals (see Figure 1). Percentage of incorrect waste sorting for each item was also determined (see Figure 2). Data was statistically analyzed using t-tests to determine if the decals resulted in a significant difference of sorting accuracy. The qualitative data was analyzed by reading the interviews and determining the percent of participants who noticed the decals and the percent of participants who thought they were useful.

Ethical Considerations

When conducting interviews, ethical considerations must be adhered to. Participants were informed of the purpose and duration of the interview and were made aware of their right to decline participation or withdraw at any time. In addition, written consent was recorded, but the participants' identity remained anonymous unless otherwise chosen.

Results

Statistical analysis using t-tests on observation data showed t-value of 0.47 between age groups and 0.81 before and after the addition of new decals. Our results indicate that for the purposes of our project, neither age nor the addition of new decals had a significant impact on waste sorting accuracy. The top five most incorrectly sorted items were plastic bags, food, paper towels/napkins, candy wrappers, and pop cans (see Figure 2). Suggestions from the interviews included “installing more bins for ... organic waste [in the community centre]”, “better signs and bins for soft plastic”, and “make decals more presentable and obvious”. Most participants (72%) expressed that they did not notice the new decals. After the decals were shown to all participants, 40% of people found them helpful, while 60% thought they were busy-looking and not pleasant to look at due to their low placement (see Appendix C and Figure 9).

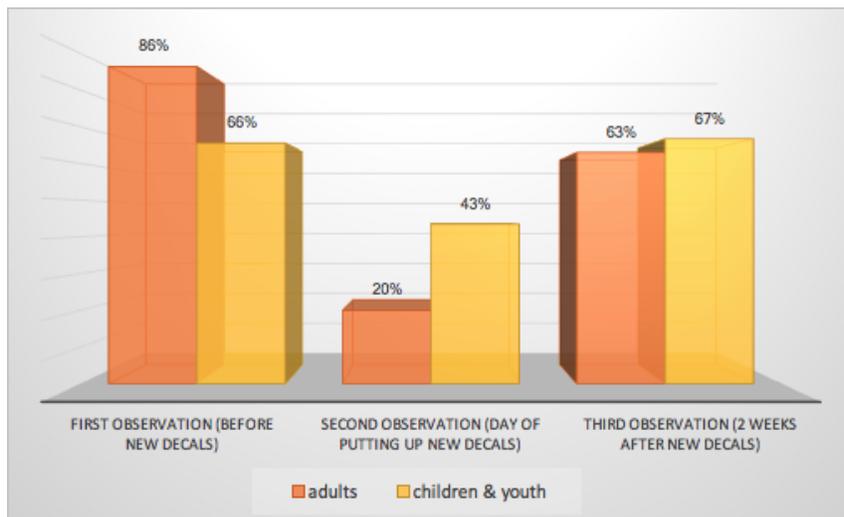


Figure 1. Percent Correctness of Waste Sorting for Adults and Children/Youth

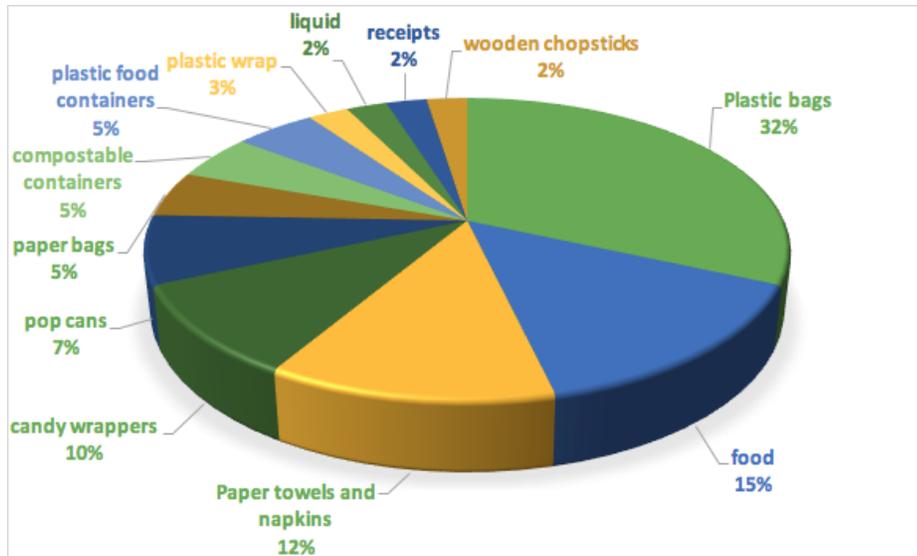


Figure 2. Comparison of All Incorrectly Sorted Items, With Corresponding Percentages

Discussion

Our interviews show that most participants feel the current system is helpful, however, the average percent correctness was ~73%, leaving room for improvement (see Figures 6-8 for current signage). To explain this phenomenon, Percy (a Roundhouse staff member), mentioned that some centre users may not care to sort waste because they are not frequent visitors of the centre and thus lack a sense of belonging and responsibility for it. Since most interviewees reflected that they did not notice the decals, this implies that the decals have potential to be helpful if placed in a different location.

Our data revealed a decrease in waste sorting accuracy after the addition of decals but results were not statistically significant. There were many limitations to our project that impacted results. Limitations include a small sample size, inadequate length observation time, and the fact that we only observed one location. In order to achieve more accurate findings that could be extrapolated to a larger population, more research needs to be done over a longer period of time. In addition, we encountered disadvantages to our chosen data collection methods.

Sometimes we could not accurately determine items being sorted due to limitations of the human

eye and the location of the waste station, which was difficult to view from the front side (see Figure 10). We originally considered counting the waste at the end of day, which would have presented more accurate data, but our community partners did not want to jeopardize our safety. The interviews were also brief and small in number. In the future, electronic and/or paper surveys could be distributed to reach more people. In addition, we encountered individuals who were deterred by the consent forms. Due to the above limitations, it is very difficult to utilize our data on its own to draw definite conclusions and therefore, further research is required.

Our project implemented the Asset-Based Community Development framework discussed by Mathie and Cunningham (2010). Although we set out to determine the effectiveness of new decals, our project encompassed identifying the current strengths of community members regarding waste sorting. Surprisingly, we found that children/youth sorted their waste quite well and therefore may not necessarily be the portion of the population to target (as intended by the low position of the new decals).

In the broader context of our food system, our findings determined that there is still much work to be done in terms of educating the community on proper waste sorting and increasing awareness of its importance. We must strive for correct waste sorting to become second nature as this is a very important component in sustaining our current food system.

Conclusion

Our project has shown the importance of consulting with a community before implementing changes. However, there are still many questions left unanswered. Would the decals be effective in other community centers? Would the decals be more effective if left up for a longer period of time? As noted earlier, further research is needed to draw concrete conclusions. While we are unsure if the city will use the information presented in this report to

make their final decision, we have suggestions for future waste diversion initiatives. One suggestion is to add lids to the bins and place the decals on the lid. We noticed that if people walked by the waste station in a hurry, they rarely opened the compost lid and thus, food scraps ended up in the garbage. If all the bins had a lid, people may be more inclined to place food in the compost because they would have to lift up a lid regardless. One suggestion from a Hubbub attendee was to add a garbage bin lid with a small opening (e.g. 2 inches in diameter) to allow people to think twice before placing their drink cups or food containers in the trash. A more viable option may be to change the current signage. Taking our top five most commonly incorrectly sorted items into consideration and adding extra pictures to the current signs could be beneficial. All in all, our project may not have significantly improved waste sorting accuracy but we collected valuable data for the city. The most effective decals may never improve sorting accuracy if people do not care in the first place, so we feel accomplished knowing that we raised awareness and started conversations about waste diversion.

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Age and Percentage Correctness of Participants on October 6th

#	Age	Correct (☐) or Incorrect (x)	Percentage Correct
1	A	x	0%
2	A	☐	100%
3	C	☐	100%
4	A	☐ x	50%
5	C	☐	100%
6	A	x	0%
7	C	☐	100%
8	C	☐	100%
9	A	☐	100%
10	A	☐ ☐	100%
11	A	☐	100%
12	C	☐ ☐	100%
13	C	☐	100%
14	A	☐	100%
15	A	☐ ☐	100%
16	C	xx	0%
17	C	☐	100%
18	C	☐	100%
19	C	xxx	0%
20	C	x	0%
21	C	☐	100%
22	C	☐	100%

23	C	<input type="checkbox"/> <input type="checkbox"/> xxx	40%
24	C	<input type="checkbox"/> x	50%
25	C	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	100%
26	A	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	100%
27	A	<input type="checkbox"/>	100%
28	C	<input type="checkbox"/> <input type="checkbox"/>	100%
29	A	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	100%
30	A	<input type="checkbox"/>	100%

Table 2
Age and Percentage Correctness of Participants on October 26th

#	Age	Correct (<input type="checkbox"/>) or Incorrect (x)	Percentage Correct
1	A	xx	0%
2	C	xx	0%
3	C	<input type="checkbox"/>	100%
4	C	x	0%
5	C	x	0%
6	A	<input type="checkbox"/> x	50%
7	C	<input type="checkbox"/>	100%
8	C	<input type="checkbox"/>	100%
9	Y	<input type="checkbox"/> <input type="checkbox"/>	100%
10	C	xx	0%
11	C	x	0%
12	C	<input type="checkbox"/>	100%
13	C	<input type="checkbox"/>	100%
14	A	x	0%

15	C	x	0%
16	C	x	0%
17	C	<input type="checkbox"/>	100%
18	C	x	0%
19	C	<input type="checkbox"/> xx	33%
20	C	<input type="checkbox"/>	100%
21	C	x	0%

Table 3
Age and Percentage Correctness of Participants on November 10

#	Age	Correct (<input type="checkbox"/>) or Incorrect (x)	Percentage Correct
1	A	<input type="checkbox"/> xx	33%
2	A	x	0%
3	A	<input type="checkbox"/>	100%
4	A	<input type="checkbox"/> xx	33%
5	A	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	100%
6	A	<input type="checkbox"/> xxxxxx	17%
7	A	<input type="checkbox"/>	100%
8	A	<input type="checkbox"/>	100%
9	Y	x	0%
10	C	<input type="checkbox"/>	100%
11	C	<input type="checkbox"/>	100%
12	A	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	100%
13	A	<input type="checkbox"/>	100%

Appendix B

Table 4

Sorting Accuracy By Item at Roundhouse Community Centre on Thursday, October 6th from 12-1pm

Item	Proper bin	# of times sorted	# of times sorted correctly	Comments
Candy wrappers	Landfill Incinerator	9	8	One placed in compost
Cardboard	Mixed Paper	0	0	
Chip bags	Landfill Incinerator	1	1	
Coffee cup lids	Mixed containers	3	3	
Compostable containers and plates	Food Scraps	3	2	One placed in landfill
Compostable utensils	Food Scraps	0	0	
Cup sleeves	Mixed Paper	2	2	
Envelopes	Mixed Paper	0	0	
Food	Food Scraps	9	6	All three placed in landfill
Glass drink bottles	Mixed Containers	0	0	
Juice boxes	Mixed Containers	0	0	
Liquids	NOT permitted in mixed containers	0	0	
Magazines	Mixed Paper	0	0	
Milk cartons	Mixed Containers	0	0	
Newspapers	Mixed Paper	0	0	
Paper bags	Mixed Paper	4	3	
Paper cups	Mixed paper	3	3	
Paper food wrap	Mixed paper			
Paper towels and	Food Scraps	7	4	Two placed in

napkins				landfill, one in compost
Plastic bags	Soft Plastics	4	0	All placed in landfill
Plastic cutlery	Landfill Incinerator	1	1	
Plastic food containers	Mixed Containers	2	1	*
Plastic gloves	Landfill Incinerator	0	0	
Plastic lids	Mixed Containers	1	1	
Plastic wrap	Landfill Incinerator	2	1	One placed in landfill
Pop cans	Mixed Containers	0	0	
Receipts	Mixed Paper			
Scrap paper	Mixed Paper	0	0	
Straws	Landfill Incinerator	0	0	
Styrofoam containers	Landfill Incinerator	0	0	
Styrofoam cups	Landfill Incinerator	0	0	
Tea bags	Food Scraps	0	0	
Water bottles	Mixed Containers	0	0	
Wooden chopsticks	Food Scraps	0	0	

Table 5
Sorting Accuracy By Item at Roundhouse Community Centre on Wednesday, October 26th from 12:05-1:05pm

Item	Proper bin	# of times sorted	# of times sorted correctly	Comments
Candy wrappers	Landfill Incinerator	2	0	
Cardboard	Mixed Paper	0	0	

Chip bags	Landfill Incinerator	0	0	
Coffee cup lids	Mixed containers	0	0	
Compostable containers and plates	Food Scraps	2	1	One placed in mixed papers
Compostable utensils	Food Scraps	0	0	
Cup sleeves	Mixed Paper	0	0	
Envelopes	Mixed Paper	0	0	
Food	Food Scraps	3	0	Two placed in landfill and one in mixed containers
Glass drink bottles	Mixed Containers	0	0	
Juice boxes	Mixed Containers	0	0	
Liquids	NOT permitted in mixed containers	1	0	
Magazines	Mixed Paper	0	0	
Milk cartons	Mixed Containers	0	0	
Newspapers	Mixed Paper	0	0	
Paper bags	Mixed Paper	3	1	Two placed in landfill
Paper cups	Mixed paper	1	1	
Paper food wrap	Mixed paper			
Paper towels and napkins	Food Scraps	2	1	One in mixed papers
Plastic bags	Soft Plastics	4	0	All placed in landfill
Plastic cutlery	Landfill Incinerator	1	1	
Plastic food containers	Mixed Containers	2	0	Two in landfill
Plastic gloves	Landfill Incinerator	0	0	
Plastic lids	Mixed Containers	0	0	
Plastic wrap	Landfill Incinerator	0	0	
Pop cans	Mixed Containers	3	0	

Receipts	Mixed Paper			
Scrap paper	Mixed Paper	1	1	One placed in landfill
Straws	Landfill Incinerator	0	0	
Styrofoam containers	Landfill Incinerator	0	0	
Styrofoam cups	Landfill Incinerator	0	0	
Tea bags	Food Scraps	0	0	
Water bottles	Mixed Containers	0	0	
Wooden chopsticks	Food Scraps	0	0	
Yogurt box lid (plastic)	Landfill	1	0	One placed in food scraps
Sandwich Wrapper(plastic like subway)*		1	0	One placed in landfill
Plastic food wrapper*	Soft plastic	1	0	One placed in landfill

*: Difficult to tell if there's food wrapped inside

Table 6
Sorting Accuracy By Item at Roundhouse Community Centre on Thursday, November 10th from 12-1:20pm

Item	Proper bin	# of times sorted	# of times sorted correctly	Comments
Candy wrappers	Landfill Incinerator	2	1	
Cardboard	Mixed Paper			
Chip bags	Landfill Incinerator			
Coffee cup lids	Mixed containers	1	1	
Compostable containers and plates	Food Scraps			
Compostable utensils	Food Scraps			

Cup sleeves	Mixed Paper			
Envelopes	Mixed Paper			
Food	Food Scraps	5	5	
Glass drink bottles	Mixed Containers			
Juice boxes	Mixed Containers			
Liquids	NOT permitted in mixed containers			
Magazines	Mixed Paper	1	1	
Milk cartons	Mixed Containers			
Newspapers	Mixed Paper	1	1	
Paper bags	Mixed Paper			
Paper cups	Mixed paper	1	1	
Paper food wrap	Mixed paper	1	0	landfill
Paper towels and napkins	Food Scraps	5	0	Three landfill, two mixed paper
Plastic bags	Soft Plastics			
Plastic cutlery	Landfill Incinerator			
Plastic food containers	Mixed Containers	1	0	
Plastic gloves	Landfill Incinerator			
Plastic lids	Mixed Containers			
Plastic wrap	Landfill Incinerator			
Pop cans	Mixed Containers			
Receipts	Mixed Paper	1	0	Landfill
Scrap paper	Mixed Paper			

Straws	Landfill Incinerator	1	1	
Styrofoam containers	Landfill Incinerator			
Styrofoam cups	Landfill Incinerator			
Tea bags	Food Scraps			
Water bottles	Mixed Containers			
Wooden chopsticks	Food Scraps	1	0	
Plastic toy? (looked like a broken leggo piece LOL)	Mixed Containers	1	1	

Appendix C

First round of interviews conducted at Roundhouse Community Centre on Thursday, October 6th from 1-2pm. Name (if given), gender and age group noted as consent forms were not yet available.

INTERVIEWEE #1) Kristian, Male, Adult

Q) What are your thoughts about the current zero waste stations? Do you like them?

A. Yes

Q) Is anything unclear to you?

A. The pictures are helpful, especially if someone's unsure about which bin waste goes into just looking at the word/title of the bin.

Q) If you could add, remove, or change anything about the bins to make sorting waste easier, what would you do?

A. The bins themselves are already super great but moving the bins physically is difficult; the connectors make it bulky and not sturdy enough to move between locations.

INTERVIEWEE #2) Community member, Female, Adult

Q) What are your thoughts about the current zero waste stations? Do you like them?

A. The bins are easy to use and pictures are super helpful. Teaching her young daughter (4 years old) how to sort, said she uses the pictures to sort her waste (like a matching game). Likes how it's environmentally friendly

Q) Is anything unclear to you?

A. No

Q) If you could add, remove, or change anything about the bins to make sorting waste easier, what would you do?

A. Nothing

INTERVIEWEE #3) Community members, Female x3, Adults

Q) What are your thoughts about the current zero waste stations? Do you like them?

A. All consider themselves environmentally conscious, so they like the bins and how it's accessible in public areas such as the community centre. Previously brought waste home because there were no bins at place of food consumption. They also like how "the bins have variety so all waste can be sorted appropriately".

Q) Is anything unclear to you?

A. No

Q) If you could add, remove, or change anything about the bins to make sorting waste easier, what would you do?

A. Nothing

INTERVIEWEE #4) Community member. Female, Adult

Q) What are your thoughts about the current zero waste stations? Do you like them?

A. She used to live in Northern Europe, so she's familiar with waste sorting. She's not a Vancouver resident, just visiting her son who lives here for a few months. Mentioned waste diversion wasn't a trend here the last time she visited so she's surprised at the progress our city has made. Thinks the bins are alright.

Q) Is anything unclear to you?

A. Pictures are okay but different bins in different buildings bins have different pictures so it's not easy to quickly recognize. Thinks they should be constant throughout the city.

Q) If you could add, remove, or change anything about the bins to make sorting waste easier, what would you do?

A. Have some sort of uniformity across the bins from one area to the next.

INTERVIEWEE #5) Percy (staff member), Male, Adult

-Told us casual visitors are okay at sorting waste, elementary school kids are good, but at community events not so good – participants don't really care. Roundhouse was a pilot for the zero waste program and thus, all staff members are all "trained" in some aspect - very used to the bins. Believes organics bin is used most often, and use of landfill bins has decreased since zero waste station implementation.

Q) What are your thoughts about the current zero waste stations? Do you like them?

A. Thinks their great.

Q) Is anything unclear to you?

A. Not to him personally.

Q) If you could add, remove, or change anything about the bins to make sorting waste easier, what would you do?

A. Better and more images - they have helped in the past (gathered from previous projects' data).

Round 2 of interviews conducted at Roundhouse Community Centre on Wednesday, October 26th at 1:05-2:30pm. Name only recorded if given on consent forms.

INTERVIEWEE #1

Q) What are your thoughts about the current zero waste stations? Do you like them?

A. Thinks the bins are great, it is good that Vancouver is doing such initiatives and should be adopted in LA (where her sister is from) because they do not have such programs.

Q) Is anything unclear to you?

A. No

Q) If you could add, remove, or change anything about the bins to make sorting waste easier, what would you do?

A. Nothing she would improve except writing where the stations with organics and soft plastics are since they are not at every station in the community centre.

Q) Did you notice the new decals at all?

A. No

If no: Why do you think you didn't notice them? Because she was in a rush when entering the building.

INTERVIEWEE #2

Q) What are your thoughts about the current zero waste stations? Do you like them?

A. He likes the bins, thinks they're good and getting better with the addition of the soft plastics.

Q) Is anything unclear to you?

A. Yes, sometimes he has to pause and study the signs before understanding where things go, and even then, there's still confusion when he tosses an item (i.e. he doesn't know if he did it right)

Q) If you could add, remove, or change anything about the bins to make sorting waste easier, what would you do?

A. Be more direct in terms of the materials that constantly need sorting (ex: coffee cups & remaining liquids)

Q) Did you notice the new decals at all?

A. No

If no: Why do you think you didn't notice them? They're too low but even looking at them now, it's a waste of time to look at both decal and current signage plus they have an afterthought/sloppy look compared to the existing current signage.

INTERVIEWEE #3) Carol

Q) What are your thoughts about the current zero waste stations? Do you like them?

A. Thinks there's not enough compost bins. It's preventing her from sorting food scraps (i.e., apple cores). It takes her longer than she would like to find a proper waste station where she can sort her waste properly. The bins with open lids attract flies → could need pest control if prolonged.

Q) Is anything unclear to you?

A. The bins are pretty clear; if she has questions or concerns, she calls the city (311) and asks about the issues.

Q) If you could add, remove, or change anything about the bins to make sorting waste easier, what would you do?

A. There's no need to add or remove anything about the bins, they function pretty well.

Q) Did you notice the new decals at all?

A. No

If no: Why do you think you didn't notice them? N/A

INTERVIEWEE #4) Ati

Q) What are your thoughts about the current zero waste stations? Do you like them?

A. Really likes the waste sorting bins, said it is good that Vancouver is doing this because it is good for the environment and simple to use.

Q) Is anything unclear to you?

A. No

Q) If you could add, remove, or change anything about the bins to make sorting waste easier, what would you do?

A. Nothing to add, says the signs and pictures are helpful.

Q) Did you notice the new decals at all?

A. *Did not specifically say if she saw the decals but says the signage in general with the pictures is helpful and easy to use - has seen it in shopping centres around the vancouver area

INTERVIEWEE #5) Parker

Q) What are your thoughts about the current zero waste stations? Do you like them?

A. Really likes the bins, thinks they're great for the community

Q) Is anything unclear to you?

A. Nothing unclear, thinks they are super easily and simply to follow.

Q) If you could add, remove, or change anything about the bins to make sorting waste easier, what would you do?

A. Nothing in particular to change, but notes that sometimes the bins are not as obvious. For example, the gym he goes to on Broadway - he goes there often but doesn't recall a full zero waste station.

Q) Did you notice the new decals at all?

A. No, but went to look when they were brought up.

If no: Why do you think you didn't notice them?

Thinks "they're cool", and would probably be helpful IF people noticed them.

Round 3 interviews conducted at Roundhouse Community Centre on Thursday, November 10th at 11-11:55am.

INTERVIEWEE #1

Q) What are your thoughts about the current zero waste stations? Do you like them?

A. Yes, appreciates that the zero waste stations are at the community centre.

Q) Is anything unclear to you?

A. No, thinks the pictures are helpful

Q) If you could add, remove, or change anything about the bins to make sorting waste easier, what would you do?

A. Perhaps include photos of where the waste is going or what it is being turned into (background information)

Q) What do you think of the new decals? Are they helping you to sort waste faster/better?

A. "I would probably not see those".

"I haven't noticed them because of where they are posted".

“Somewhere more visible would be nice”.

INTERVIEWEE #2

Q) What are your thoughts about the current zero waste stations? Do you like them?

A. Likes that the zero waste stations serve as a reminder to bring her own mug/containers.

She “feels guilty” when she has to buy a water bottle and then dispose of it at the station.

Q) Is anything unclear to you?

A. No

Q) If you could add, remove, or change anything about the bins to make sorting waste easier, what would you do?

A. Make the bins transparent so people can see what’s going inside.

Q) What do you think of the new decals? Are they helping you to sort waste faster/better?

B. “What decals?” (She hadn’t seen them)

“They kind of just look messy ... you’re not gonna bend over [to look before throwing out your waste].”

INTERVIEWEE #3

Q) What are your thoughts about the current zero waste stations? Do you like them?

A. She likes them.

Q) Is anything unclear to you?

A. No, thinks they are easy to understand because of the pictures.

Q) If you could add, remove, or change anything about the bins to make sorting waste easier, what would you do?

A. One suggestion she has is to include real 3D examples of what goes into each bin (e.g. coffee cup).

Q) What do you think of the new decals? Are they helping you to sort waste faster/better?

A. Thinks they make the bins look “more complete”.

Critical Reflections

Student 1

Reflecting on the semester, I realize what a whirlwind of events the CBEL project and all of the time my group members and I have dedicated to our engagement with the community have been. There have been moments of success, frustration, excellent collaboration, uncertainty followed by clarity and a general feeling of being overwhelmed throughout the past few months. However, I am happy to say that our group was very supportive each other and worked well achieve our original goal set by our community partners (City Studio and the City of Vancouver) and ourselves. We used our flexible learning sessions very efficiently throughout the term – either meeting our community partners or meeting as a group to work independently on our project. We also had to find time outside of these blocks to conduct our observations (3 sets) for the project, so we spent a significant amount of time with each other. Throughout the term, Facebook and Google Docs were our groups' main source of communication which worked very well for us. We were all actively participating online and through googledocs we could all simultaneously work on assignments, such as the blog posts, with ease. Blog post writing was very new to all of us however, I believe we greatly improved in our writing abilities and capacity to continuously connect our work to various readings in our class. The blog was a very useful tool in order to reflect on our learning throughout the semester, understand the process we were taking to complete our project and easily present updates on our findings to our community partners.

Student 2

LFS350 was both a familiar and completely unexpected journey for me this term. While its group-based structure was nearly identical to LFS250 and thus fairly expected, the amount of

exposure we received to the community itself was not – which was mainly a positive surprise! Being assigned to my first choice CBEL project was reassuring because at least I knew I'd be working on a project I had genuine interest in. Of course, it was also incredibly promising when I started to get to know my group mates better and our communication strengthened as we bonded over the project. There were undoubtedly moments of hardship laced with confusion and disagreement, as well as the inability to find a period of time everyone was available to meet/work together. However, "Group 17" was by far one of the easiest teams I've collaborated with since we were all open to each other's ideas and assertive enough to challenge one another when ideas didn't flow cohesively with another's. Using Facebook as our communication platform and Google Docs as our collaboration site for assignments, we were able to update each other's work and keep in touch constantly and efficiently. The flexible learning blocks were helpful since we used almost all of them to either meet with our community partners or collect data for our project. While this term definitely hasn't been easy, I'm very grateful for the experiences LFS350 has given me and for the awesome effort my group members put in all term!

Student 3

If I were completely honest, I complained about this project a little too much throughout the term: the doubt, the panic and the fickleness made me question whether we were going in the right direction. Now that the term is officially ending, I'm looking back at what my group has accomplished, how we dealt with issues, and how the whole project has turned out, I'm very glad we did it together! I worked with incredible teammates, who are supportive, brilliant and full of wonderful ideas. I collaborated with community partners that are knowledgeable in building a stronger local network and vibrant community. It wasn't an easy task, but as a team, we used

each other's strength to complement weakness. We critically evaluated other's ideas, accommodated other's schedules and managed to work online simultaneously to complete every task throughout the term. The flexible learning period is very helpful as it gives a chance for us to meet, talk to community partners and conduct our project. Writing a progress blog as a group is new. Trying to connect and applied academic readings to a community project is challenging to all of us. However, as the term progresses, I see that we improved on many skillsets: blogging, communication and cohesive writing as a group, to name a few. I am thankful that I have been a member of Group 17. We put in effort and did great work together. THANK YOU, GROUP 17! I hope our work has laid some groundwork for possible future projects.

Student 4

I had a much different experience this semester as LFS 250 from last year. By having interactive lectures together with CEBL project, I had a better understanding on how the social communities interact with each other on food related aspects.

Moreover, the flexible learning sessions which we had this term provided us with more practical experiences when working as a group.

At the beginning of the project, we were guessing maybe we need to design our own research to see if there might be any better improvements for the current waste recycle system in Vancouver.

Despite my first impression on the difficulty of the project, I am very proud of my teammates and myself that we have successfully accomplished it by the end of the semester.

During our research, we found that we had already been assigned with research topic by our community partners from City Studio. Their information about the background of the project was very helpful which directed us towards our success in this project. I have learnt several new

important skills through the project. I learnt how to do blogging, and academic writing along with various communication skills which will surely be useful for my future studies. I feel grateful getting along with all my teammates this semester for they are easygoing, creative and hardworking. Every member of the teams has contributed greatly to the project and helped each other to overcome the difficulties. I really appreciate the helps I received from my fellow teammates. Thank you all, Group 17.

Student 5

Never have I ever put so much time and energy into a group project. Partly because so much work was required to properly complete it, but also because I was really passionate about it. I enjoyed working on something that I was lucky enough to choose to do. This is not to say the term didn't have ups and downs, but overall, I am so proud at what we accomplished. I was pushed out of my comfort zone when engaging with the community and it paid off. Our qualitative data from the interviews was the most valuable in my opinion because it showed what community members want and need. Even though I was blessed with a really great group, we still struggled at times to meet up and get through assignments which added to my interdisciplinary skill set. This is hugely important for my upcoming career as a Dietitian, where I will be working with all sorts of different people on a daily basis. As such, I am thankful for a class like LFS 350 that challenge the norms of our education system by getting students out of the classroom to learn. However, I am relieved the term is over because I don't think I could mentally handle another project with the requirements of this one. It feels great to end on a good note even though the beginning of the term brought so much uncertainty.



Figure 3. Mixed Containers Decal



Figure 4. Mixed Paper Decal



Figure 5. Food Scraps Decal



Figure 6. Current Mixed Containers Sign



Figure 7. Current Mixed Paper Sign



Figure 8. Current Food Scraps Sign



Figure 9. The New Decals on the Waste Bins



Figure 10. Where We Conducted Our Naturalistic Observations (Shown in Red)