

**Campus Food Insecurity: Unpacking Definitions of Quality, Availability and
Affordability of Food at UBC Vancouver**

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1.0 Executive Summary

The Undergraduate Experience Survey (UES) currently asks students about their satisfaction with the quality, costs, and availability of healthy and nutritious foods on campus. However, the data collected does not provide insight to students' understanding of the concepts nor their reasons for the satisfaction rating given. Through this project, we aim to gather information on how students interpret "cost", "availability" and "quality" of healthy food on campus, along with their overall food experience on campus, with a focus on the latter. The results of this project will lead to future actions that will help achieve the UBC Wellbeing Strategy for a "nutritionally sound campus (UBC Wellbeing, 2017)."

Our situational assessment included communications with community partner Natasha Moore, Melissa Baker, the former Manager of Nutrition & Wellbeing at Student Housing and Hospitality Services (SHHS), and literature review to determine steps taken when assessing students' perceptions of campus foods. We determined using a survey and focus groups were ideal in collecting data, along with use of the Social Ecological Model (SEM) to assess students' responses.

As described in the report, the project outputs include an initial survey that provides insight on the clarity of questions to be used in the focus group surveys, and to provide an initial outlook on students' understanding of the terms in question. Two, one-hour focus groups were conducted to further assess students' experiences with the food environment at UBC as it relates to cost, availability and quality of healthy foods. Themes that are discussed hereon in relation to the Social Ecological Model.

2.0 Introduction

The Undergraduate Experience Survey (UES) is administered every year to University of British Columbia (UBC) undergraduate students, under the direction of the Vice President Students office (Vice President, Students, n.d.). The UES is a quality improvement tool, providing a snapshot of the undergraduate students' experience of university culture and environment beyond academia. Part of the questions intended to gather information on students' perception of the quality, availability, and affordability of food on campus. Given the current quantitative nature of the UES questions, the survey is unable to capture how students interpret the terms "quality," "availability," and "affordability," nor their perception of food outlets with regards to providing healthy and nutritious food options.

Along with concurrent Social Ecological Economic Development Studies (SEEDS) projects focused on understanding food insecurity on campus, this project will explore students' perceptions on affordability, quality, and availability of healthy and nutritious foods on campus through a survey and two focus groups. The results will provide our target audience -- Research and Evaluations Analyst Natasha Moore, with valuable information to improve the quality of the UES survey questions focused on food offerings, with the purpose of enhancing quality of data gathered by the UES. The direct impact of food availability, affordability, and quality on food insecurity leads to the importance of increased understanding of how the current UBC food environment impacts students (Frank, 2019). Given UBC's Strategic Plan and Wellbeing strategy have a focus on food and nutrition, it is important that the UES gather students' experiences in these areas to inform future decisions of campus initiatives and development that support food security on campus (UBC Wellbeing, 2017; University of British Columbia, 2018, p. 40).

3.0 Situational Assessment and Planning Framework

3.1 Problems

Every year UBC administers the UES as a means to gather a broad overview of students' perceptions regarding their overall university experiences . The UES covers various aspects that make up the student experience at UBC, ranging from sports and recreation, the university community, to housing and hospitality (Vice President, Students, n.d.). These topics are further subdivided, including students' food experiences on campus. In the UES 2016 (Appendix 3, Figure 1), three questions were asked about the overall well-being of food on campus. These questions revolve around:

- 1) The quality of food campus
- 2) The availability of healthy and nutritious food options on campus
- 3) The cost of healthy and nutritious food options on campus

The results of the UES 2016 revealed that the majority of students are dissatisfied with their food experiences at UBC. Survey findings show that less than 30% of students are satisfied with the quality of food on campus in addition to the availability of healthy and nutritious food options on campus (Appendix 3, Figure 1). The cost of healthy and nutritious food options on campus has the lowest satisfactory rate of the three food-related questions at only 8% (Appendix 3, Figure 1). While the survey provides the UES team and campus stakeholders, such as UBC Student Housing and Hospitality Services (SHHS), with quantitative data in the form of percent satisfaction of food on campus, there is an absence of qualitative data to show students' interpretation of the terms used in these questions and understanding in the reasoning of the students' choice of satisfaction of their food environment. With our project, we hope to alleviate this knowledge deficit by gathering qualitative data so our community partner and other campus stakeholders can better understand students' food experiences and use this information to

improve access and affordability of on-campus foods for students, in accordance to UBC's Strategic Plan and Wellbeing Strategy (UBC Wellbeing, 2017). Furthermore, it is important to note that, unlike many of the other FNH 473 SEEDS projects, assessment of behavioural changes is not within the scope of our project as ultimately, our primary intention is to gather information that would inform future practices and improvements to data gathering through the UES.

3.2 Behaviors

As stated in section 3.1, our project is not meant to be an intervention to cause behavior change, but rather a research opportunity to better understand student experiences. A long-term impact of our project may alter the food environment on campus to better serve students and improve access and affordability of food, although directly causing change is not within the scope of our project. Understanding the behaviors that lead to students' food choices is important, but it is also important to understand the environment within which the students make food choices. This is why we chose to use the Social Ecological Model to evaluate our research, as explained in section 3.4.

3.3 Mediating Factors

Mediating factors are defined as the relationship between the independent and the dependent variable (Complete Dissertation, 2019). For our project, the independent variable would be the undergraduate students, and the dependent variable would be students' food selection on campus. The mediating factors of our project will be discussed in three levels: individual, interpersonal, and community level.

On the individual level, a mediating factor is the faculties that the students are in. Out of our 7 focus group participants, 3 of them are Nutrition majors. Due to the prerequisite courses these students are required to take, such as introductory nutrition

courses, there is a possibility that these nutrition students might be more health conscious than the average UBC student. This might contribute to nutrition students' evaluating campus food more harshly in terms of quality compared to those that are in other faculties (Ilich, 1999).

A second mediating factor on the individual level is socioeconomic status. Socioeconomic status influences students' food selection on campus because students' of higher socioeconomic status are willing to pay for more per meal, which gives them a larger variety of foods to choose from and those foods might also be of higher quality, compared to students' from low economic status. Students of high socioeconomic status have been found to consume healthier diets (Fismen et al., 2016).

A third mediating factor on the interpersonal level is students' social circle. Students' food choices are likely to be influenced by their peers' food choices. For example, students may restrict themselves to eat in certain establishments that their friends dine in or visit frequently (Deliens et al., 2014). This factor might lead to students' believing that campus food lacks variety and availability.

On the community level, SHHS policy can affect food quality, availability and affordability on campus. SHHS corporate responsibility and values include a promise of competitive wages and sustainable food options such as organic produce and OceanWise™ offerings (UBC Food Services, n.d.). These sustainable options can affect the pricing of food at its establishments; therefore, influencing students' overall perceptions of pricing on campus. Additionally, the availability of food options on campus based on franchising licensing partners can affect the overall perception of variety provided through campus partners.

3.4 Health Behavior Theory

Through our situational assessment, we determined that a students' perception of quality, cost, and accessibility are influenced through individual factors along with institutional policy that dictates their food environment. Hence, throughout our program planning we chose to use the The Social Ecological Model (SEM). This model identifies five domains of influence on a person's behavior: public policy, institutional, community, interpersonal and individual (Rimer and Glanz 2005). Some examples of how these domains influence health include: municipal laws that regulate food permits (public policy), social norms around popular restaurants (community), bureaucratic red-tape that prevents farmers markets from opening (institutional), family expectations to eat certain foods (interpersonal) and finally individual food preferences or allergies (individual). These domains are dynamic, and their interplay impacts both social relationship and environments that influence health behaviors.

Since the SEM recognizes the complexity of health behaviors and especially acknowledges the environmental impact on behavior, we chose to use it in our research. Ultimately this research is meant to illuminate the ways that the environment at UBC is affecting student food choices. Through our surveys and focus groups we aimed to better understand how the five domains of the SEM are affecting student behavior. For example, are students experiencing a lack of availability of food on campus because certain buildings lack cafes or restaurants? Or is it because restaurants are so popular that line-ups inhibit students from buying food? The first example would fit into the 'institutional' domain of SEM, while the second example would be the 'community' domain.

Other researchers examining student food choices have also used the SEM to assess student experiences of food on campus. Similar to our research, Sogari et al. (2018) used the

SEM when conducting and analyzing semi-structured focus groups on healthy affordable food with university students. Townsend & Foster (2011) used SEM when analyzing high school student food choices, and Tyrrell et. al (2015) used SEM when conducting semi-structured interviews with university students living at home and their food decisions. In all three of these studies the Social Ecological Model is used to better understand the food decisions of students, which aligns with the research we conducted for the UES.

3.5 Limitations of Situational Analysis

The situational analysis we conducted led to a deeper understanding of the UES and the aim of our community partner to better understand students' experiences with food access and availability on campus. The literature review we conducted led us to choose the Social Ecological Model to guide our analysis, as well as helped determine our use of surveys and focus groups, as this was a common approach in the literature. A strong asset we identified early on was the support and expertise of our community partner Natasha Moore. Her experience with research analysis, and her insights into the long term objectives of the project, helped shape our outputs.

Some of the limitations of our situational analysis include the lack of peer reviewed literature on student food experiences on Canadian campuses. Due to the very diverse student population at UBC, it was difficult to find research that was appropriate for the various demographics, such as on-campus, commuter, international or domestic students. Another limitation was the large scope of the project. Fully researching the qualitative food experiences of students on campus should extend much beyond a one semester project, so a major limitation of our situational assessment was time. This seems to be an inevitable limitation of class projects, but is important to acknowledge.

4.0 Project Goal and Objectives

Since our project is a small part of a larger ongoing project initiated by UBC Wellbeing, the project objectives will support the emerging UBC Wellbeing Strategy for a “nutritionally sound campus” (UBC Wellbeing, 2017). These objectives are framed as recommendations only. Revisions are expected to increase specificity and ‘SMARTness’ of the objectives as the project progresses.

Project Goal:

To support UBC Wellbeing Strategy on campus food insecurity through exploring students’ perspectives on campus food quality, availability, and affordability.

Short-term Objectives (up to 6 months):

- By April 2019, our community partners, SEEDS and Natasha, will have increased understanding on students’ perspectives of food quality, availability, and affordability on campus.
- By May 2019, knowledge gaps between UES and students’ perspectives on campus food quality, availability, and affordability are identified by survey developers and community partners, including SEEDS and Natasha.

Medium-term Objectives (1 to 5 years):

- By late 2019, questions will be improved to better capture students’ opinions and experiences on food quality, availability, and affordability on campus in the UES for 2020.
- In February 2020, the revamped UES will display students’ perspectives on campus food quality, availability, and affordability with increased accuracy in comparison to previous surveys.

Annually, the UES will allow campus food quality monitoring and will help community partners and UBC policy makers to identify priority campus food-related issues that can be addressed from a community-based or policy-based approach by comparing the survey data from the previous year.

Long-term Objectives (5+ years):

- The majority of students will have access to healthy and nutritious foods that they would consider affordable and of good quality on campus resulting from improvements of food programs and services across campus.

Our long-term objective is one of the objectives of UBC Wellbeing Strategy; therefore, this long-term objective will be influenced and achieved through the outcomes of other ongoing SEEDS projects that work toward the common theme of alleviating food insecurity on campus.

5.0 Project Outputs

5.1 Initial Survey

Prior to generating questions for the focus groups, we created a survey to gain insight on students' perspectives on quality, affordability and availability of healthy and nutritious food on campus (Appendix 3). With Natasha Moore's help, we broke down the current UES questions into smaller components that allow students to explain what quality, affordability, and availability mean to them, and give examples of such offerings. Our intent was to gain a clear understanding of how students interpret these terms and what their criteria for categorizing healthy, quality, and affordable foods. Our initial survey consists of open-ended questions to ensure that students expressed their opinions without restrictions. We conducted the survey in person to ensure students remained engaged in the process (Roberts et al., 2014). To increase the level of interaction during the survey, students were asked to verbally complete the survey.

Through the use of open-ended questions, we were able to understand what influences students' food choices with regard to the SEM. For example, for the question about students' opinions on healthy food available on campus, we received answers that were based on students' preferences and institutional policy on campus restaurants. In terms of personal preferences, one respondent stated that healthy food options are limited with little variety on campus (Appendix 5). Another example regarding policy influence on campus food outlets would be their hours of operation, one respondent indicated that "healthy options closes sooner" on campus, making healthy and nutritious food available only at certain time periods (Appendix 5). From survey results, we determined that students understood "healthy" and "nutritious" to be interchangeable terms; that is, an item that they considered healthy or nutritious would provide them with adequate vitamins, minerals, energy, and protein, as described by respondents. We also

concluded that most students think healthy and nutritious foods are available and accessible on campus, however they are overpriced. In addition, students also mentioned that it is difficult to eat healthy during late nights since all campus food services are closed, which speaks to the institutional level of influence in the SEM. The initial survey, which is one of our project outputs, then served as an input in drafting the questions for our focus groups.

5.2 Focus Groups

Our initial survey informed focus group discussions, which allowed for an in-depth analysis of students' views on campus foods. Due to time constraints, we recruited our focus group participants through social media (i.e. UBC student Facebook groups). The participants who signed up online were contacted by us to confirm their attendance. We conducted two, one-hour focus groups consisting of 4 attendees each. During the start of our focus groups, we implemented the use of questions with similar themes to our initial survey (Appendix 6). This then led us to asking broader questions about the attendees' overall food experiences at school. Since we encouraged open discussion, the themes that arose during the discussion, along with the focus group questions, acted as a medium for further conversation when current discussion topics were exhausted.

From our focus group findings, there were a few recurring concerns. Common themes include offerings being overpriced, lacking in variety, and portion sizes being insufficient. As part of our focus group findings, we also compared the results of the UES survey from our participants to the results from the 2016 survey (Appendix 3). For the question regarding quality of food on campus, majority of our participants said they were "somewhat dissatisfied" (37.5%), followed by "dissatisfied" (25%). Our participants explained that the quality and portion of food on campus was poor. Upon knowing that the previous UES results had a satisfaction rate of 33%,

our participants suggested that it was an optimistic answer, and more fresh produce instead of frozen and processed foods would improve the quality of food on campus.

As for availability of healthy and nutritious food option on campus, “somewhat dissatisfied” and “somewhat satisfied” both had 37.5% of votes from our participants, with a comparison of 30% satisfaction rate from UES results. Although food is available on campus, participants stated that those food options are often over-priced and the outlets have short operation times. Healthy foods were also often overshadowed by process/packaged foods. Participants explained that their response of ‘somewhat dissatisfied’ or ‘somewhat satisfied’ was due to having more food options since the Life Building reopened, as well as having access to higher quality and availability of foods on campus if ‘on-campus’ includes the International Village. Using the SEM framework, these are examples of institutional or policy influences on student food choices. Students also shared that they would like an even larger variety of foods on campus, and that the village is not location-friendly for buying food between classes.

Lastly, the question regarding the cost of healthy and nutritious food options on campus received 50% of “very dissatisfied”. The UES found a 10% satisfaction rate for this question, and our participants agreed with the number, explaining that the cost of foods on campus did not correspond with their portion sizes.

Many students indicated that one thing they would change about their day at school, in terms of food, is the avoidance of buying campus foods. Students mentioned eating off-campus or meal prepping, as these are cheaper alternatives. However, some students who commute to campus mentioned that it is not always feasible for them to bring enough food for the day given lack of access to refrigeration and/or microwaves to reheat their food. While this is not a finding directly related to food purchases on campus, it is important to note that the aforementioned

student concern can impact their food choices and the money they spend on food, which can contribute to an assessment of perceived food insecurity.

5.3 Recommendations

For future research on student experiences with food availability, it is important for the UES to better define ‘availability’. For example, our survey respondents deemed it as walkable distance based on their location on campus or hours of operation. Having a clearer definition of availability of food on the UES will yield clearer results, which can be used by campus food providers such as SHHS for the purpose of improving services. For example, if a general outlook of availability is meant to be captured through this question, then perhaps a revised question could add a definition of availability meaning “options are present somewhere on campus.”

Additionally it is important for the UES to be explicit about which food establishments they want students to evaluate. Many focus group participants evaluated the affordability and availability of food on campus based on their use of franchise restaurants such as Tim Hortons and Triple Os or the food establishments at the International Village, where SHHS does not have franchising partners. Although these responses give an accurate account of students’ food experiences, they might not be the most relevant to SHHS. If the scope of the UES results is meant to be used by SHHS specific establishments, then revision is warranted. One suggestion to address this is to use Qualtrics display logic, where if students answer “yes” to buying from UBC SHHS establishments, they could be directed to more questions for further evaluation. In this scenario the UES team would be able to stratify responses according to the source of foods, and therefore better address gaps in service.

6.0 Evaluation Plan

Short term

One of the process indicators for our project was our initial survey. The results from our initial survey indicated that students found our questions repetitive and that they were not able to provide enough in depth information. After our initial survey, we revised the questions and were able to obtain more qualitative information in our focus groups.

We were able to achieve our short term goal of providing SEEDS and Natasha an increased understanding on students' perspectives of food quality, availability, and affordability on campus. We presented our survey and focus group findings to Natasha via email and in meetings, where she informed us that we were able to help her better understand students' definitions of these terms (N. Moore, personal communications, March 4, 2019).

Medium Term

With regards to medium term findings, we hope that UBC will be able to revise questions to better able to capture students' perspectives on food quality, availability and affordability on campus. To measure the attainment of clarity of the questions on availability and in general, which food service establishments to assess, as described in section 5.3, we suggest that a duplication of our initial survey, with revisions based on updated questions, to be administered to undergraduate students. Results to the survey would show which food establishments students evaluate, along with their perception of the more clear definition of availability.

Long term

In the long term, we hope that through our findings and proposed revisions, UBC will be able to improve the quality, affordability and availability of food on campus based on obtaining more accurate feedback through the UES. Given the complexity of affecting institutional change

and the involvement of other projects and initiatives such as other SEEDS projects, it is beyond the scope of this project to make evaluation recommendations. If the UES survey is still conducted as a measure of student satisfaction, an increased percentage of students satisfied with the cost, quality, and availability of healthy food on campus could be a starting measure.

7.0 Conclusion

The key findings from this project are that, while students mention healthy food options are available on campus, they would like more affordable options, and in general see a greater variety of restaurants on campus. Important to the adjustment of UES questions is that some students perceive ‘availability’ as walkable distance to food establishments, while others might define it as the hours of operation of establishments. Additionally, students do not distinguish UBC food service establishments to those run through independent businesses on campus; an important consideration if the assessment is to be in response to SHHS establishments.

Through this project, we learned the importance of maintaining the project goal at the forefront of all project actions. Additionally, although maintained throughout the project, our objectivity was challenged. Being students, we have our own preconceived notions of food on campus, based on our personal experiences and outside influences, just as our research participants. As such, it was crucial for us to maintain neutrality in our questions and conduction of the focus groups to prevent participants’ answers to be influenced by our opinions.

While this project identified gaps in understanding of UES questions by students, future steps should include continued assessment of the clarity of the UES questions on cost, quality, and availability of healthy foods on campus. Additionally, it would be beneficial to continue assessment of students’ perceptions of their food environment through focus groups, particularly once larger changes to food cost and availability occur. In this manner, UBC can better assess if students’ needs for more affordable options and the UBC Wellbeing Strategy are being met.

8.0 Author Contributions

XC was the liaison with SEEDS, conducted the initial survey, acted as the notetaker for the first focus group and led the discussion for the second focus group. She drafted mediating behaviours (3.3) and evaluation plan (6.0).

VJ conducted the initial survey and literature review. She drafted behaviors (3.2), health behavior model (3.4) and Limitations (3.5) of the situational assessment, as well as 5.3 Recommendations.

DL conducted the initial survey and was the data collector for the second focus group. He drafted the problem section of the situational assessment (3.1) and program output (5.2).

ILR conducted initial survey, designed focus group questions and led the first focus group. She drafted the executive summary (1.0), introduction (2.0) , evaluation plan (6.0), and conclusion (7.0). She also edited and revised the overall report.

SY conducted the initial survey, summarized the survey results (Appendix 4) and data collected from focus groups, and drafted program goal and objectives (4.0) and program output (5.1).

All members of the group read, edited, and approved the final report.

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10.0 Appendices

Appendix 1: Logic Model

SITUATION	INPUTS	OUTPUTS	OUTCOMES		
			SHORT TERM Up to 6 months	MEDIUM TERM 1-5 years	LONG TERM 5+ years
<p>The Undergraduate Experience gathers information on students' ranking of accessibility, affordability, and quality of healthy foods on campus through a Richter scale. While this can give a percentage of students who are satisfied with the above, there is a gap in understanding of how students interpret each question, their food values, and what they hope to see from food establishments on campus.</p> <p>Our project aims to reduce this knowledge gap.</p>	<p>Time -- of group members, community partner (Natasha Moore, SEEDS) and respondents</p> <p>Facilities -- Place to host focus groups</p> <p>Expertise -- research from our group on food security/accessibility</p> <p>Fiscal resources-- funding for student participation incentives</p> <p>Initial survey to understand students' perspectives on healthy and nutritious foods, quality, and affordability on campus. (Also a project output)</p>	<p>Initial survey to gain insight on how students interpret healthy and nutritious foods, quality, and affordability and their criteria for categorising these terms. (Also act as a project input for drafting focus group questions)</p> <p>Conduct focus groups to gather more in-depth information on the survey questions, targeted at the overall food experience on campus</p> <p>Focus group findings and Summary of survey findings shared with community partners</p>	<p>By April 2019, our community partners, SEEDS and Natasha, will have increased understanding on students' perspectives of food quality, availability, and affordability on campus.</p> <p>By May 2019, knowledge gaps between UES and students' perspectives on campus food quality, availability, and affordability are identified by survey developers and community partners, including SEEDS and Natasha.</p>	<p>By late 2019, questions will be improved to better capture students' opinions and experiences on food quality, availability, and affordability on campus in the UES for 2020.</p> <p>In February 2020, the revamped UES will display students' perspectives on campus food quality, availability, and affordability with increased accuracy in comparison to previous surveys.</p>	<p>The majority of students will have access to healthy and nutritious foods that they would consider affordable and of good quality on campus resulting from improvements of food programs and services across campus.</p> <p>(Our long-term outcome is one of the outcome of UBC Wellbeing Strategy; therefore, this long-term objective will be influenced and achieved through the outcomes of other ongoing SEEDS projects that work toward the common theme of alleviating food insecurity on campus.)</p>
External Factors					
	<p>Time frame of project based on Winter academic term</p>	<p>Individual experiences which shape student views of food environment</p> <p>Surveys and focus group administered during midterm and end of term are busy times for students, potentially affecting participation</p>		<p>Ability to adapt UES survey before next administration</p>	<p>Concurrent initiatives on campus and potential changes in Wellbeing Strategy priorities</p> <p>Infrastructure limitations on campus which may prevent implementation of ideals</p>

CAMPUS FOOD INSECURITY

LFS 473



Applied Public Health Nutrition

UNPACKING DEFINITIONS OF QUALITY, AVAILABILITY AND AFFORDABILITY OF FOOD AT UBC VANCOUVER

Being a post secondary student, have you ever heard of your friends complaining foods on campus? We are a group of students from University of British Columbia who are passionate to break down the definitions of food quality, availability, and affordability in students' perspectives. We are honoured to partner up with Natasha Moore, Research and Evaluations Analyst for Student Housing and Hospitality, and SEEDS Sustainability Program for this project. We are thankful for all the supports and resources from our community partners, as they have facilitated our overall project and allowed us to develop our survey and focus group questions from their previous UES survey questions.

As students ourselves on the same campus, we already had some ideas

of students' general opinions on this topic; however, it was still interesting to see the different standards each individual had on food quality, availability, and affordability. For example, the difference for affordable range of cost was from below \$10 to below \$20, it demonstrated the difference between individuals.

We learned that there was a huge individual difference in the standards of our three big topics on campus, as students on UBC Vancouver campus are highly diverse in terms of economic and social status, and racial identification. Due to the time constraint, our group sizes were relatively small in survey and focus groups; therefore, it was difficult to generate our findings to this diverse population.

This opportunity has provided us a

brilliant experience to work on project that is related to public health nutrition in community, we profoundly understood that it is not an easy task, as qualitative data could be influenced by lots of uncontrollable factors, and standards and feelings vary by individuals. Those factors can highly influence our solution to solve the public health issues. Therefore, we have come to respect the professionalism of our community partners, and hope that our project findings can help them to gain a better knowledge for future studies or interventions regarding foods on campus.



Appendix 3: Undergraduate Experience Survey 2016 Results

Please rate your satisfaction with the following:
 * "Not applicable" responses were excluded in % calculations.

	University Summary
Quality of food on campus	26% (n = 7,367)
Availability of healthy and nutritious food options on campus	27% (n = 7,333)
Cost of healthy and nutritious food options on campus	8% (n = 7,346)
Quality of recreational facilities on campus	40% (n = 6,563)
Availability of recreational facilities on campus	40% (n = 6,723)

Figure 1: UES 2016 results for food and physical activity core questions

FNH 473: Initial Survey

This survey is being used in FNH 473 to assess student's perceptions on quality, affordability, and accessibility of food on campus. This is to inform future changes to the Undergraduate Experience Survey (UES). The answers to this survey are anonymous but answers will be used in a student report available through the UBC SEEDS library.

1. **Do you consent to our use of your responses in UBC report?** Mark only one oval.

Yes

No

2. **Which faculty are you in?**

3. **What year of study are you in?**

Healthy and Nutritious

4. **What does healthy food mean to you?**

5. **What does nutritious food mean to you?**

6. **Are these types of food available to you on campus? Explain.**

Quality of Food

7. What does "quality of food" mean to you?

8. Could you describe the "quality" foods that you think are available on campus?

Affordability

9. How much are you willing to pay for a "healthy and nutritious" meal on campus? (i.e. lunch)

10. What "healthy and nutritious" foods are available on campus at the price you are willing to pay?

~~OBJ/OBJ/OBJ/OBJ~~ 11. Is there anything else you'd like to mention about the food available on campus?

Appendix 5: Initial Survey Results

Respondents

30 students completed our initial survey on campus. Of the 30 students, nine students were in the faculty of Arts, two were in Commerce, one was in Engineering, seven were in Land and Food Systems, and eleven were in Sciences (Figure 1). As for their year of study, two students were first years, three were second years, five were third years, seventeen were fourth years, and three were fifth years (Figure 2). Among the 30 respondents, students from some faculties, including Faculty of Kinesiology and Faculty of Forestry, were missing. In addition, the vast majority of the respondents were students in their final years of study.

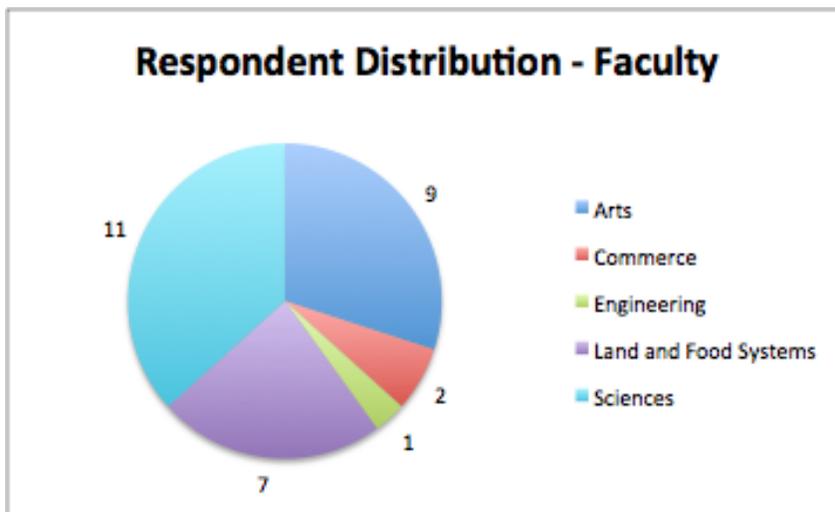


Figure 2: Respondent distribution by Faculty.

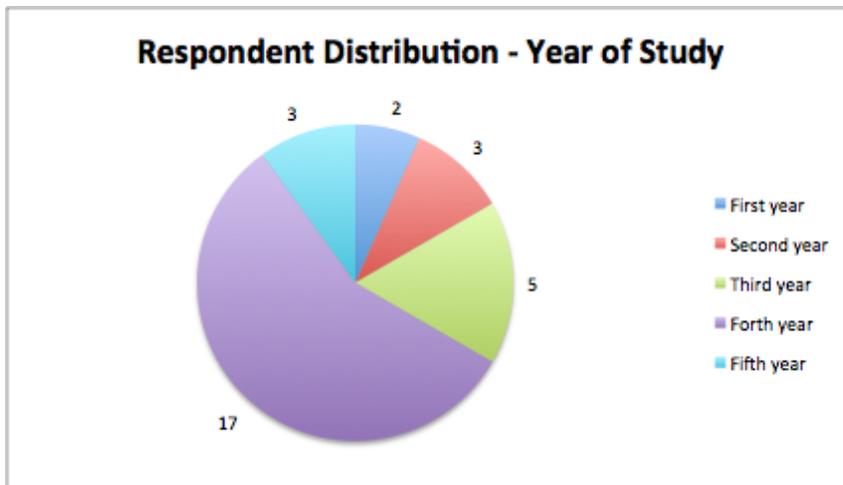


Figure 3: Respondent distribution by year of study.

Healthy and Nutritious Food

We found that most respondents use the terms 'healthy' and 'nutritious' interchangeably. Of the 30 responses regarding what healthy and nutritious food mean to the respondents, the common themes/ answers were 'lots of vegetables', 'vitamins and minerals', 'makes the body feel good'. Vast majority of the respondents stated that healthy and nutritious food options are available on campus; however, there is lack of variety and options. More than half of the respondents said that these food options are available but they are generally at a higher price or are less affordable. One respondent stated that "they're pretty expensive so that does decrease the availability [of healthy and nutritious food on campus] in a sense by making [these food options] less affordable". Another respondent also commented that "healthy options closes sooner" on campus, making healthy and nutritious food available only at certain time periods.

Quality of Food

Common themes regarding respondents' views on quality of food were 'taste good', 'fresh ingredients', 'nutritious', and 'how it is prepared'. We found that most respondents prioritize personal preferences when we asked about quality of food, in which they often talked about taste, texture, appearance, and preferred preparation methods. The responses regarding availability of quality foods on campus were mixed. Respondents who said no quality food is available on campus responded "campus foods tend to be prepared ahead of time and are not freshly made". Respondents who said there is quality food on campus often commented on salad bars in residents, Porch at the AMS Nest, and Mercante at Ponderosa. We noted that a common theme between these three food outlets is that the food is made to order or made in front of the consumer.

Affordability

14 Respondents (47% of all respondents) stated that they are willing to pay maximum \$10 for a healthy and nutritious meal on campus. 83% of all respondents stated that they are willing to pay between \$10 to \$15 for a meal. The majority of the respondents stated that healthy and nutritious foods are available on campus for \$10 to \$15, in which Porch at AMS Nest and sandwiches were brought up numerous times. However, some respondents stated that price of food on campus is not aligned with its portion size. A respondent states "yes you can get a sandwich for \$10, but you'll only be full for 30 minutes, so I wouldn't consider that lunch." Another respondent also commented that "I personally think [\$10 to \$15] is a pretty high price and there are a lot of food in this price range. But, often the quantity of the food isn't enough [for me] and I'm hungry way sooner than I'd like to be."

Appendix 6: Focus Group Questions

1. What do you value in the food you eat? (i.e. what do you look for in the food you eat?)
2. What are 3 things that come to mind when you think of food on campus?
3. What does your day look like, food-wise, while on campus?
4. Describe your ideal day eating on campus.
5. What one thing would you change?

Undergraduate Experience Survey Questions (used in focus group)

Please rate your satisfaction with the following (circle one):

1. Quality of food on campus

Don't know/not applicable Very dissatisfied Dissatisfied Somewhat dissatisfied
Somewhat satisfied Satisfied Very satisfied

2. Availability of healthy and nutritious food options on camp

Don't know/not applicable Very dissatisfied Dissatisfied Somewhat dissatisfied
Somewhat satisfied Satisfied Very satisfied

3. Cost of healthy and nutritious food options on campus

Appendix 7: Focus Group Consent Form



Food, Nutrition and Health

Faculty of Land & Food Systems 214-2205
East Mall, Vancouver, BC Canada V6T 1Z4
Phone: 604.822.3934

Dear students,

You are invited to participate in a focus group. The purpose of the focus group is to explore students' perceptions on healthy food on campus. We want to know about your experiences! Your voices will be valuable to enhancing UBC's awareness of how students view the current landscape of food on campus.

Risks and Benefits

There are no risks associated with being in this focus group. The direct tangible benefit to you is the chance to win a prize (see below), and the opportunity to provide your input towards the future of food on campus.

Prize Draw

Thank you for agreeing to help us by participating in this focus group. We would like to thank you by entering you in a random draw for a \$25 UBC Bookstore gift card.

Anonymity

We appreciate your honest feedback in this – all your answers will be strictly confidential. No names will be associated with any response, and will not leave the focus group. A report will be generated with the findings from this focus group and will only use summarized, anonymous data to help improve future of the Undergraduate Experience Survey.

Name: _____

Signature: _____

Appendix 8: Focus Group Results

Frequency of terminology usage for: *What do you value in the food you eat? (i.e. what do you look for in the food you eat?)*

Term	Frequency
Deliciousness/Taste	7
Nutrition/Nutritional Value	4
Price	3
Quality	2
Healthy/ Health Benefits	2
Variety	2
Fillingness	1
Aesthetics	1
Food preparation	1
Balance	1

Most common answers for: *What are 3 things that come to mind when you think of food on campus?*

Answer	Frequency
Overpriced/Expensive	6
Lack of variety	3
Lack of fillingness and deliciousness	3

What's one thing you would change regarding food and school? (Each number denotes each attendee's answer)

1. Ideally not eating on campus. Have **cheaper options**. Less than \$8

2. Bigger breakfast before coming to school
3. **Higher quality** foods worth paying for
4. Would want soup or sandwich place
5. **Meal-prep** more because **eating on campus is expensive**
6. Buy less coffee/make own
7. Eat at healthier places/buy flavourful and healthy food
8. Make healthier **food more affordable**

SUMMARY:

For many of the students, one significant thing they would change about their day, food wise, is the avoidance of purchasing food on campus. Alternatively, students frequently mentioned eating off-campus or meal prepping as they are cheaper options compared to eating on campus. In terms of food on campus, students desired both an increase in affordability for healthier foods and increase in quality foods worth paying for. With this question, there were two means of interpretation. Some students interpreted the question as what they would change about their day food-wise on campus, whereas other students interpreted the question as what are some changes that could be made regarding campus food

Describe your ideal day eating on campus. (Each number denotes each attendee's answer)

1. Have a place with more fresh foods, options
2. Ideal already compared to before (ate 3 meals on campus)
3. Choices that are tasty, worth the money
4. Have a quick on the go place
5. Eat breakfast Tim Hortons, lunch at Pacific Poke (with gift card). Eat snack/beverage at starbucks/Tim hortons, eat dinner at the village with friends
6. Bring lunch or cook at friend's house to save money and ensure eating healthy
7. Healthy, filling and delicious meal everyday
8. Breakfast at Life building (convenient, right by the Loop), lunch at the nest/village, dinner at home or restaurant

SUMMARY:

We found that an ideal day to eat on campus for our participants depends on their locations, the shops that are more regionally convenient and less time consuming were a more popular choice for breakfast and snacks; for heavier meals such as lunch and dinner, our participants would prefer the Nest and the International Village.

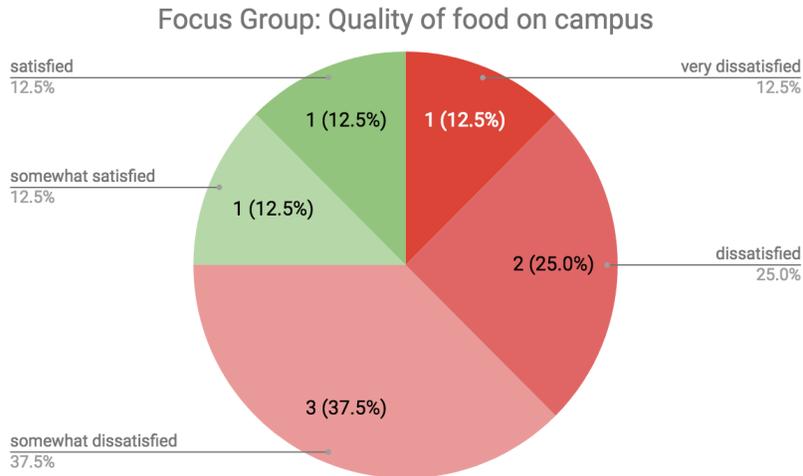


Figure 4: Focus group findings of quality of food on campus

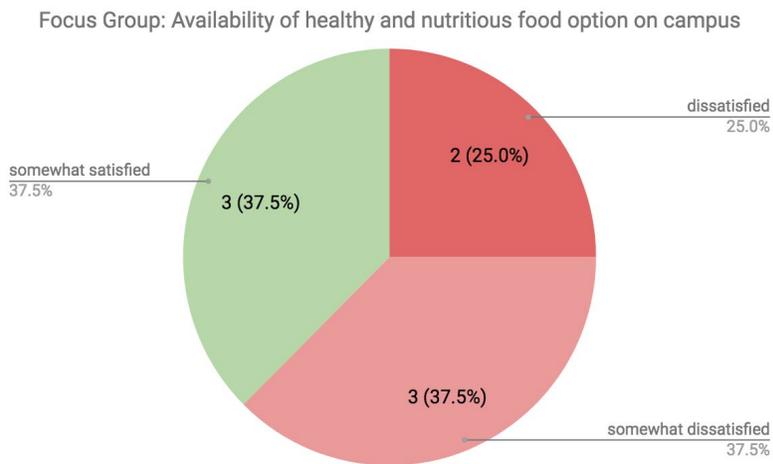


Figure 5: Focus group findings of availability of healthy and nutritious food option on campus

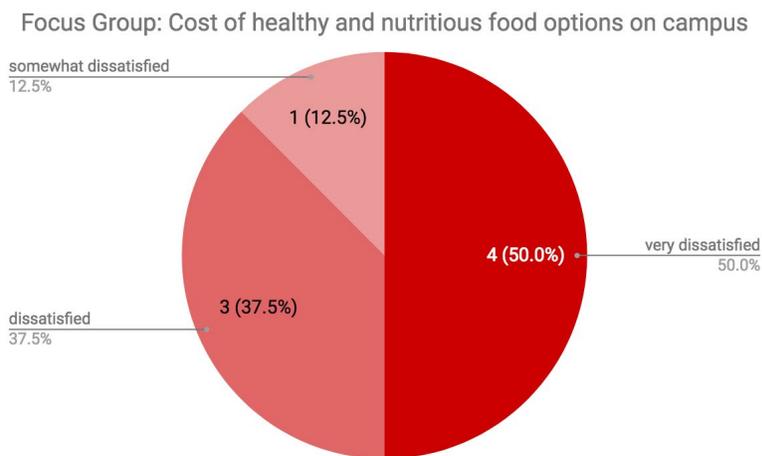


Figure 6: Focus group findings of cost of healthy and nutritious food options on campus