

UBC Social Ecological Economic Development Studies (SEEDS) Student Report

The Sustainability of the UBC Food System: An Assessment of Place Vanier

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The Sustainability of the UBC Food System: An Assessment of Place Vanier



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Abstract

The focus of this paper is an assessment of the sustainability of Place Vanier as a component of the UBC food system. The most critical problem, in terms of long term sustainability of this subsystem, was found to be that the selection of the food at Place Vanier doesn't promote the health of the students. An integral part of our analysis of the sustainability of Place Vanier was deciding on what indicated sustainability within the system. For social sustainability, our indicator was the ability of the system to sustain and nourish the students, and thereby promote health. The way that we devised of measuring this was to analyze the top three dinner items sold for each day of the week and see if they fit the requirements of good nutrition as set out by the Canada food guide. In this way the student' choice of food at the Place Vanier cafeteria is used to reflect the overall ability of the system to promote good health.

The central findings of this study were that the main items sold in the cafeteria of Place Vanier do not meet the requirements for good nutrition that the Canada food guide has set out. Our recommendations are that the food served in the cafeteria should have lower fat, more carbohydrates and more fiber, and the vegetarian foods should contain more protein in order to promote the health of the students.

The abstract is very good. However, it suggests that for the group ecological and economic sustainability are not important...Is it an environmentally & economically blind study? It is OK to focus o social sustainability for the sake of data collection due to time and resource-limitations as long as ecological and economic relations are acknowledged and discussed in terms of their influence on social sustainability and directions for research offered.

Introduction

The focus of this paper is an assessment of the sustainability of Place Vanier as a component of the UBC food system. Through the collection and analysis of data, and dialogue within our group, we came to a consensus that the most critical problem, in terms of long term sustainability of this subsystem, is that the selection of the food at Place Vanier doesn't promote the health of the students.

The theoretical framework for the analysis of the sustainability of the Place Vanier food system is based on our definition of what sustainability is. The different disciplines found within our group have contributed to a very broad definition. The members of our group have dietetics, food and nutrition, and agroecology backgrounds. Different factors were considered to be the most significant aspect of food security for Place Vanier by the different members of the group. Those within the agroecology discipline had a more ecocentric perspective and placed more emphasis on environmental protection to ensure food security. Those from the dietetics or food and nutrition backgrounds had a more community-based perspective and found social sustainability derived from proper nutrition to be the most important issue in our analysis of Place Vanier.

The underlying foundation for our analysis, however, was the shared vision of a sustainable system. This system would include protection of the soil, water and genetic resources, nutrient and energy cycles which were as closed as possible, efficient use of resources, economic stability, the support of local enterprises, and the sustenance of the community (***This aspect (last paragraph) should have been mentioned in the Abstract***) This last point, the sustenance of the community, is the focus of our research in respect to Place Vanier. This concept of sustaining the community was further refined into the question of the students' nutrition at Place Vanier. ***This focus is OK provided that you reflect and make suggestions for future research on the ecological and economic aspects of sustainability, if not, it is just a nutritional analysis, which is very important of course, but not an exercise in integrative knowledge***

A good introduction always provide the reader with a brief plan of the paper. It is good but incomplete.

Sustainability of Place Vanier

The Place Vanier food system plays an important role in the health of over 900 students. Place Vanier serves breakfast, lunch and dinner to the students, and in many cases, is their only source of the food. A few members of our group have had personal experience with on-campus cafeteria food. Two members of our group have been residents at Place Vanier. Many students who eat at the Place Vanier cafeteria complain about the greasy meals that are served there. Most students who are on the meal plan claim to gain weight in a very short period of time. Thus, our problem statement was raised as a common issue among students who eat at this cafeteria. ***In what ways is this problem a microcosm of the global, national and regional food system? What aspects of the larger system show up here?*** Currently the selection available and the price system at Place Vanier does not promote the choice of healthy food. ? ***What aspects of the larger system show up here?***

The subsystem for the purposes of this study was narrowed down to the Place Vanier dining hall. The dining facility of Place Vanier is located on the second floor of the student commons at the center of the Place Vanier residence. The Place Vanier cafeteria (***cafeteria=dining hall?***) currently serves 900 students on a daily basis. It is very similar to most cafeterias in North America. Students will line up for their selection of food, followed by beverages and dessert, and then make payment at the counter.

The food available in Place Vanier has improved dramatically over the last few years. It now provides a larger variety of food choice, including vegetarian entrees. Wasted leftovers are minimized by inspecting the students' consumption patterns and cooking in small batches. The sources of food are also well managed by obtaining items from small-sized local bakeries and large wholesalers, effectively achieving a balance of food freshness and cost management. The Vanier food service management has also established

connections with the students, and is open to feedback. ***THIS SECTION AND THE ONE THAT FOLLOWS IS REPORTING ON FINDINGS BEFORE WE WERE EXPLAINED THE ACTUAL RESEARCH QUESTIONS AND METHODS OF INFORMATION GATHERING...***

Place Vanier runs on a pre-determined four-week menu cycle. The menu offers a variety of food choices. However, the price system makes it difficult for student to choose the healthier entrees. Healthy foods, such as salads and fruits, cost the most. The reason is partially related to the fact that student(S) have to pay for these items by weight. The main entrees are mostly deep-fried and are therefore, very greasy. Our task in this project was to analyze the nutritional content of the foods that are most often chosen in the cafeteria and come up with a solution to guide this component of UBC's food system towards being more sustainable and consumer friendly. *And in what ways this links with the ecology and economy of sustainability? Or with the "community" aspect of social sustainability?*

The assistant manager of the Place Vanier food system, Ayrin Ferguson, was extremely cooperative when asked for an interview about Vanier's operations. All data collected for this study was received through interviews with Mr. Ferguson. *There was no other source or way of verifying findings? No relevant literature?* An official menu cycle booklet was offered to us, and was invaluable to our subsequent analysis of nutritional content. For the interviews with the assistant manager of the Place Vanier food system and our follow-up research, the concerns that we focused our questions around were as follows: ***(Fortunately, this list is richer in terms of sustainability questions than what was introduced before: there are some questions that go beyond nutritional analysis. Should be reflected in the previous sections)***

- Food nutritional value
- Choice of food
- Cost to students
- Long term health implications to students
- Interactions with the community

- Location of food sources
- Financial health of the system
- Waste management (styrofoam and food waste in particular)
- Student ratings from surveys

An integral part of our analysis of the sustainability of Place Vanier was deciding on the indicators of sustainability within the system. These indicators for the Place Vanier food system fall into three categories: ecological, economic and social. One part of the ecological sustainability of this system could be measured as the amount of styrofoam and packaging. Demonstrating the ability to break-even is an indicator of the economic sustainability. One possible indicator that our group has focused on for social sustainability, is the ability of the system to sustain and nourish the students, and thereby promote health. The way that we devised of measuring this was to analyze the top three dinner items sold for each day of the week and see if they fit the requirements of good nutrition as set out by the Canada food guide. In this way the student' choice of food at the Place Vanier cafeteria is used to reflect the overall ability of the system to promote good health. ***The wording of this section creates the impression that you will address the three dimensions of sustainability and even offer possible indicators. If this was not pursued in the data collection, an explanation must be provided (why it was not?) and an explanation about why the particular indicator was suggested (“ecological sustainability of this system could be measured as the amount of styrofoam and packaging”)***

Central Findings

A balanced meal consists of 55 % of its calories from carbohydrates, 15-20 % of its calories from protein and 25-30% of its calories from fat. After analyzing the nutritional content of the most popular dinner items at Place Vanier it is clear that the majority of the students are not eating a balanced diet (refer appendix 1). The majority of the items (>50%) contain insufficient amounts of carbohydrates and an excessive amount of fat. In addition, the vegetarian

choices such as the Caesar salad and potato bar contain less protein than the recommended 15-20%. ***How were these quantities determined?***

Residents stay at Place Vanier for eight months of the year and most residents eat three meals a day, seven days a week from the cafeteria. The high fat, low carbohydrate meals that are being consumed can not be considered good nutrition. Eating such an unbalanced diet on a regular basis could have serious health effects on the residents of Place Vanier. The experts agree that good nutrition is key in reducing the risk of developing a chronic disease.(1) The high fat content of the menu items could contribute to health problems later on in life such as cardiovascular disease and diabetes.(1)

Also of concern is the students' well being. Studies have shown that students who are properly nourished perform better at school and have higher attention spans (1). The focus of Place Vanier's food services should be on promoting wholesome foods that nourish the body and improve general well being.

Recommendations

From our analysis of the nutritional content of the food at Place Vanier our general recommendations are as follows:

- Incorporate a combo system where students can purchase a meal that will provide the recommended amounts of protein, starch, and fats, ***vitamins and fibers?***
- Less focus on items that are high in only one macronutrient (i.e. meat)
- Provide items with a mixture of all food groups (meats, grains, vegetables, and fats)
- Provide a larger and more appealing selection of vegetarian or non-meat items
- Increase menu items with grains, milk products, and vegetables
- Increase the carbohydrate content of the items
- Decrease the fat content of the items
- Increase the protein content of vegetarian items

- Increase the fiber content of menu items

In addition, we have come up with some specific recommendations to help in redesigning the menu:

- Increase the carbohydrate content of the menu items:
 - Add higher complex carbohydrate content to menu items, such as potatoes, carrots, and squash
 - Add rice or noodles with the menu item as part of a combo
 - Provide a larger selection of foods rich in starch, such as pasta and noodles
 - Provide items that combine meat, starch, and vegetable items, such as casseroles and stir fry's.
- Decrease the fat content of menu items:
 - Choose sauces and dressings that contain lower amounts of cream, oils, and fat.
 - Select leaner cuts of meat or meat portions (drumsticks vs. breast or tenderloin)
- Increase protein content of vegetarian items:
 - Incorporate legumes into the vegetarian recipes. (Beans, lentils, and soy products.
 - Provide items with legumes as one of the main ingredients (chili, casseroles, salads, and soups)
 - Add skim milk powder into the recipe because it contains high amounts of protein.
 - Use soy products (tofu) in more items and in a more creative way (tofu pasta, tofu loaf)
- Increase the Fiber content of the menu items:
 - Provide and add more fiber rich foods to menu items such as brown rice, legumes and dark green and orange vegetables.
 - Provide whole grained baked products.

- Create stir fry's that use brown rice or wild rice and beans

To continue the improvement of the Place Vanier Food system, areas of further research could include taking a closer look at where the food items are coming from that are purchased through large wholesalers. Another area of research could be on ways for Place Vanier to eliminate disposable dishes and cutlery. **GOOD...why?**

Final Reflections

The number of students living at Place Vanier is expected to increase to a total of 1,300 students over the next two years when a new residence is completed. The Place Vanier dining hall will be undergoing major renovations this summer. The management of Place Vanier's food services has made some changes to increase efficiency and reduce wastes over the past few years, but more changes are expected to come after this summer. Reconstruction and restructuring of the food service system are expected to occur, therefore, the recommendations from our study may have an opportunity to be implemented.

The central findings of this study were that the main items sold in the cafeteria of Place Vanier do not meet the requirements for good nutrition that the Canada food guide has set out. Several steps could be taken by the Place Vanier management to better contribute to the health of the student community and the social sustainability of the system. In summary of our recommendations: the food served in the cafeteria should have lower fat, more carbohydrates and more fiber, and the vegetarian foods should contain more protein in order to promote the health of the students. The present offers a good opportunity to revise the meal plan as the Place Vanier food system is undergoing changes to accommodate more students. Our recommendations fit in well with the other components of sustainability within the UBC food system in that student food outlets are a good point within the system to focus our efforts towards social sustainability. These recommendations for social sustainability, along with the efforts of others in this study of the UBC food system to improve the ecological

sustainability, will contribute to a better UBC as a whole. ***The relationships between the three aspects of sustainability must be briefly explained. For example: How does lack of ecological sustainability affect the quality of the food eaten? How do economic aspects (i.e. food prices) affect social sustainability? A few examples would have sufficed just to show your awareness.***

Reference

1. Sizer, F.S., & Whitney, E.N. (1997). Nutrition: Concepts and Controversies. Belmont: Wadsworth Publishing Company.

Appendix 1

The top three dinner item sold on specific days of Place Vanier's four week menu cycle ** Information provided by Ayrin Ferguson**

Monday, week 1:

- Grilled / Baked Salmon with Asian BBQ glaze.
- Grilled Chicken Slovakia with 1/2 pita bread and home-made (yogurt, dill, and seasoning) tzatziki.
- Asian Noodle Bar. This is a made-to-order station, utilizing two home-made soup bases, tofu, several vegetables, and noodles. Students choose which items they would like and it's priced accordingly.

Tuesday, Week 2:

- Grilled Chicken Tenders in Lemon Garlic sauce.
- Baked Filet Of Cod with Dill Cream Sauce.
- Caesar Bar. This is another made-to-order station, where the students portion and mix their own salads. Ingredients include romaine, spinach, egg, bacon bits (real, not simulated), croutons, and parmesan.

Wednesday, Week 3:

- Carved Baron of Beef.
- Baked Pasta in Pesto Tomato Sauce with Mozzarella.
- Pita Bar. This is another made-to-order station offering "pita pockets" stuffed with the student's choice of 3 salad mixes and grilled chicken.

Thursday, Week 4:

- Hearty Beef Stew with Mixed Vegetables.
- Baked Potato Bar. This is another made-to-order bar, where the students can order baked potatoes with all the fixing's - broccoli, cauliflower, cheese sauce, sour cream, bacon bits (again, real!), cheddar cheese.
- Stir Fry Bar. This is another made-to-order bar, where the students choose an assortment of vegetables (white onion, green onion, shredded carrot, mushrooms, baby corn, green peppers, snow peas, bean sprouts, cauliflower, and broccoli). We cook it to order with our secret Asian sauce, add chicken or tofu upon request, and serve the stir-fry with steamed rice.

Nutritional Analysis of Menu items

Dinner item	Source of calories from protein	Source of calories from carbohydrates	Source of calories from fat
Monday, week 1			
Salmon with BBQ sauce	51%	2%	47%
Chicken Slovakia	20%	68%	12%
Asian Noodle Bar	26%	59%	14%
Tuesday, week 2			
Grilled Chicken Tenders in Lemon Garlic sauce	28%	25%	47%
Baked Cod with Dill Cream sauce	42%	45%	12%
Caesar Salad	11%	42%	47%
Wednesday, week 3			
Baron of Beef	43%	0%	57%
Pasta with Pesto Cream sauce	19%	33%	48%
Chicken Caesar Pita	21%	34%	45%
Thursday, week 4			
Hearty Beef Stew	29%	28%	43%
Potato Bar	8%	62%	30%
Stir Fry Bar	25%	68%	8%

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Group #: 1 Theme: Place Vanier

Total mark (30 % of final mark): 81%

- team paper: 80%
- website: 82%

Marking Template for UBC Food System Project

The Team Paper:

a. Introduction (25%) Mark: 19%

The focus on social sustainability and nutritional analysis is OK provided that you reflect and make specific suggestions (not just mention the need for) for future research on the ecological and economic aspects of sustainability. If not, it is just a nutritional analysis, which is very important of course, but not an exercise in integrative knowledge.

Also, a good introduction always provide the reader with a brief plan of the paper. Your is good but incomplete.

b. Underlying Value Assumptions (25%) Mark: 20%

Good. All nutritionists are community-based and all agroecologists are eco-centric? That statement is very problematic, although the idea is very good...

c. Group's position(s) in relation food system sustainability. Include an identification and description of your assigned subsystem or aspect of the UBC food system, your method of data collection and your findings, using ecological, economic and social perspectives. (30%) Mark: 23%

In what ways is the problem of students' nutrition (underfed-overfed?) a microcosm of the global, national and regional food system? What aspects of the larger system show up here?

The wording of the section on indicators creates the impression that you would address the three dimensions of sustainability and even offer possible indicators. If this was not pursued in the data collection, an explanation must be provided (why it was not?) and an explanation

about why the particular indicator was suggested (“ecological sustainability of this system could be measured as the amount of styrofoam and packaging”)

Also, it is not appropriate to report on findings before we were explained the actual research questions and methods of information gathering...

d. Conclusions or final reflections (20%) Mark 18%

Very good, with the already pointed out problems

Web Page:

Attractive graphical presentation (20%) Mark: 17%

Very good!

Identification/description of your assigned subsystem or aspect of the UBC food system (20%): Mark: 16%

Good, reflecting problems of the paper

Summary of the content of your group’s paper and be divided into sections similar to those in the group paper. Represent main aspects of food system sustainability that were included in your study (50%) Mark: 40%

Good, reflecting problems of the paper

Grammar, Punctuation, Spelling and Sentence Structure. (10%) Mark: 9%