TOWARDS AN ORGANIC STUDENTVERSE

Good Eats

ABSTRACT

Helping you select nutritious and sustainable food. An initiative for university students, by university students.

BO80613

Data, Design and Society.

1. Introduction

The main focus of our project was to bring about a change in the consumption and selection patterns of self catered university students by enabling them to make smarter food choices inside and outside the kitchen with the help of an iOS application.

Only 51% of students surveyed last year at the University of Edinburgh said that they followed healthy or very healthy diets, while only 26% of students met the '5 a day' recommendation (Deniozou, pg 17, 2015). We thought that we could improve these rates by providing students with sustainable food alternatives so that they wouldn't have to overthink their meals and end up choosing unhealthy options.

Q15: How healthy do you consider your diet to be?

Category	Percentage
Very Healthy	6%
Healthy	45%
Average	42%
Unhealthy	6%
Very unhealthy	1%
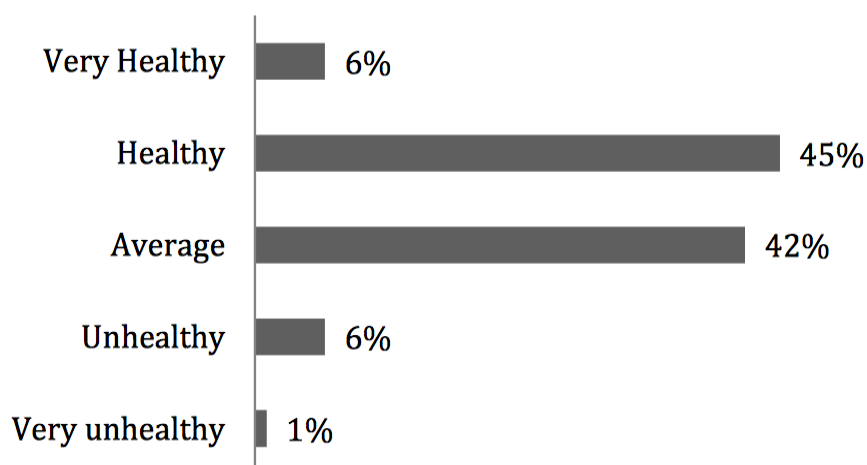
1

With the increasing food sustainability awareness at the university, we thought that it was important to address the nutritional requirements of students in a manner that would help them consciously pick organic food and knowingly contribute to preserving the ecological balance.

2. Your Problem Area

Our problem was very closely associated with all the students living in flats as part of university accommodation, since they cook and shop for groceries themselves and were not getting enough nutrition or picking green food options.

We started off with a general survey that included 47 participants across 4 self catered university accommodations, with 40 of those being full time undergraduates and 7 being visiting students

I personally interacted with various people apart from our stakeholders, like the managers at retail stores (Tesco, Lidl) and the owners at different cuisine take-away outlets in the locality of my accommodation. The manager at Tesco estimated about 40-50 student deals offered in a day. The take-away owners said that most of their customers were not students and that they offered less than 10 student discounts on all purchases in a week. This indicated that students preferred buying vegetables and fruits, possibly because of the high price associated with take-away.

ideas ➕ discussion ⬜ ACTION!

2

We aimed at strategically implementing our Focus Group (FG) discussion and Participatory Design (PD) session to make sure that we could have as much content and feedback possible without making the participants uncomfortable.

As Michael Muller quotes,

"When collaborating with users in our design environment (e.g., a meeting space at the company), we can invite a number of users from different plants and learn from hearing them exchange work experiences... Being in a foreign environment (and with other users), users will tend to take a more general view of things."

"When collaborating with users in their work context, users tend to feel more at ease as they are on their home ground – we are the visitors. Tools and environment are physically present and easy to refer to. This makes for a conversation grounded in concrete and specific work experiences.

The idea was born to create a type of design event with activities in both environments and with two sets of resources to support design collaboration. "(Pedersen and Buur, 2000).

We similarly organised our FG discussion in the common room of Kincaid's court with all participants discussing their thoughts and perspectives more consciously, also because they were being recorded. However, we individually executed our PD sessions informally interacting with 1-2 people from our accommodations, because we thought that feedback at a personal level could be more helpful.

The FG discussion brought out some important points. The stakeholders were mainly concerned about the price, time and effort involved in preparing their own meals. They thought of purchasing natural food as something they could do when they were much older/something their parents would occasionally do back home. We wanted to develop something that could enable our participants to make their meals quicker and cheaper. Our design idea was also targeted at changing their perspective of organic food in an interactive manner (possibly through introducing the green, amber and red food symbols for ingredients).

3. Your Design Idea

We choose to build the representation of a smartphone app that would engage the user extensively in the food decisions he would make throughout the journey of his day.

The Application design

The home page of the application includes 3 main tabs for the shopping list, the settings and the main recipe section.

The shopping list allows the user to add ingredients directly from the recipe pane and also add additional grocery items by typing them in. The reminders and the shopping list assist the user while he is stocking up on weekly supplies. The notifications can also be turned on/off and the currency and units toggled with from the settings tab according to the specifications of the user. The recipe tab links to 5 different types of recipe types (Inspire me, 20 minutes, Snacky eats, Vegan Foodie and Cooking for Friends) and a Favourites list.
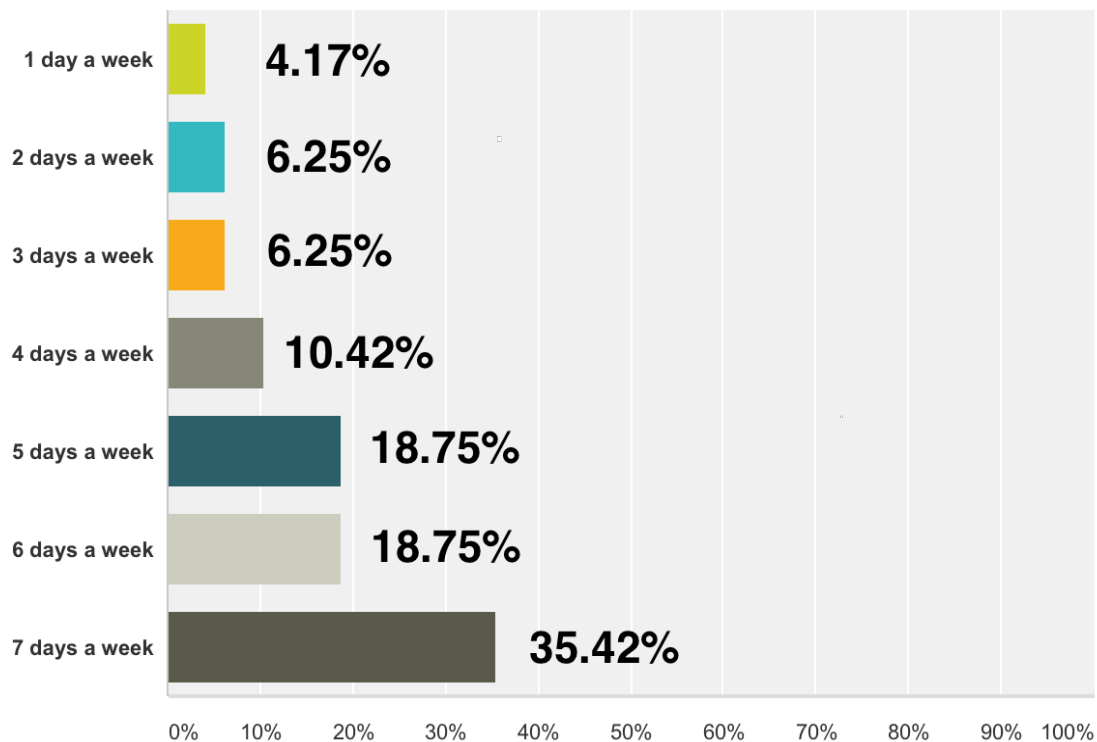
A standard recipe pane includes a button for adding to favourites, a list of ingredients, a healthy fun fact about the recipe, the total time required for preparation and the total cost per serving. It also includes the method of preparation and a running timer for each step of the method that needs waiting (e.g., boiling water, baking). We have tried to make the app representation as user friendly and interactive as possible.

An App? Why?

A research found that 90% of people between 16 and 24 years of age in the UK own a smartphone and use it for almost 2 hours a day on an average (Ofcom, 2015). This figure was even more than the time spent in a day browsing the internet. We therefore thought that an app was accessible and convenient to use for our target audience. We also thought that the diverse features of our representation could include all aspects of the student food life, like a quick snack on the run, a healthy meal for dinner or convalescent meals for sickness.

How frequently do you cook for yourself?

Answered: 48   Skipped: 0

| Frequency	Percentage
1 day a week	4.17%
2 days a week	6.25%
3 days a week	6.25%
4 days a week	10.42%
5 days a week	18.75%
6 days a week	18.75%
7 days a week	35.42%

Almost 73% of students that participated in our initial survey said that they cooked more than 5 times a week. This established the importance of them making the right decision when selecting which dishes they would make/ingredients they would purchase and how it could change their nutrition intake/impact the environment.

During the focus group session, one of the participants said that she liked actively cooking throughout the week and would even make separated food packs if she was busy for the following few days. Another participant said that he preferred cooking each meal at that specific time and would generally put the extras into the fridge for later. Most of the focus group participants thought that it was important to cook themselves.

This lead us to base our app primarily around healthy and organic recipes and their ingredients.
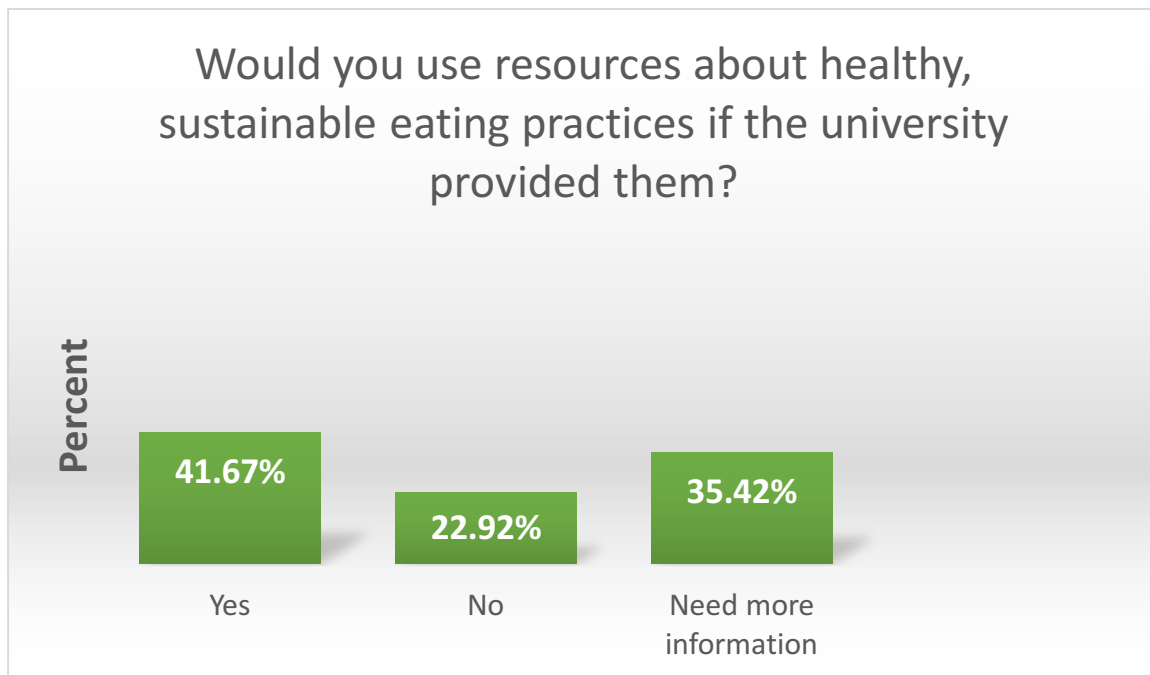
How do you feel about buying fresh ingredients and preparing food at home?

- Too expensive — 15%
- Too time consuming — 26%
- It is important to me — 48%
- I don't care — 11%
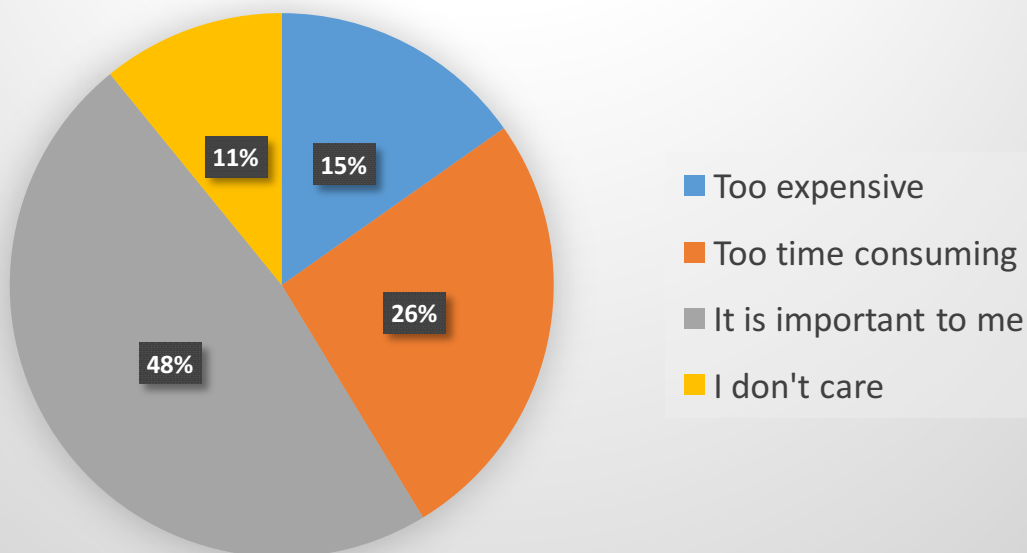
About half of the students thought that buying fresh ingredients was important to them. We wanted to raise this figure by identifying their needs and the missing components in their meal preparation so that we could innovate to ensure students were motivated and convinced enough to choose making the food item themselves instead of directly buying it off the frozen shelf.

The stakeholders from our FG and PD sessions were interested in the concept of a staple diet and thought that organic food was not on their budgeted list. They even preferred certain cheaper retail stores (like Lidl) over others because of the price of food products. Bananas, for example, cost £0.12 per piece when sold loosely at Tesco. The same banana costs £0.20 at Sainsbury.

This information resulted in us developing a price oriented approach to our recipes. We also factored in the time component by adding running timers to the recipes and saving on the wait time.

Would you use resources about healthy, sustainable eating practices if the university provided them?

Percent

|		
41.67%	**22.92%**	**35.42%**
Yes	No	Need more information

The participants in our survey and our stakeholders showed a general awareness of the sustainability issues addressed by the university and the idea of locally grown food.

An article from Oxford University states that,

"Dietary and environmental challenges will always be contextual, shaped by particular population requirements, cultures or geographies. While there is scope for achieving major synergies, a healthy diet is not automatically environmentally sustainable nor vice versa. There can, moreover, be trade-offs between health and environmental goals and also between different environmental objectives. For example fish is good for health but stocks of many species are depleted, and overfishing harms not only the viability of target species but also the marine ecosystem more generally. From a global perspective there is simply not enough fish for everyone on the planet to consume as much as government health guidelines recommend, even taking the huge expansion of global aquaculture into account, since there are many sustainability concerns associated with this growth." (Garnett et al, 2015)

Our design model has tried to address this issue by balancing the nutritional and ecological benefits of using the ingredients for the recipes provided. Our source of inspiration was the list of various food items under last question of our survey "What is your favourite type of food to eat/make?" The list included basic foodstuff like eggs/cookies and also included complex recipes like Quinoa with peppers, onions and chicken. We then formulated various recipes that we thought were nutritionally adept and mainly involved freshly grown ingredients by making modifications to our original recipe list.
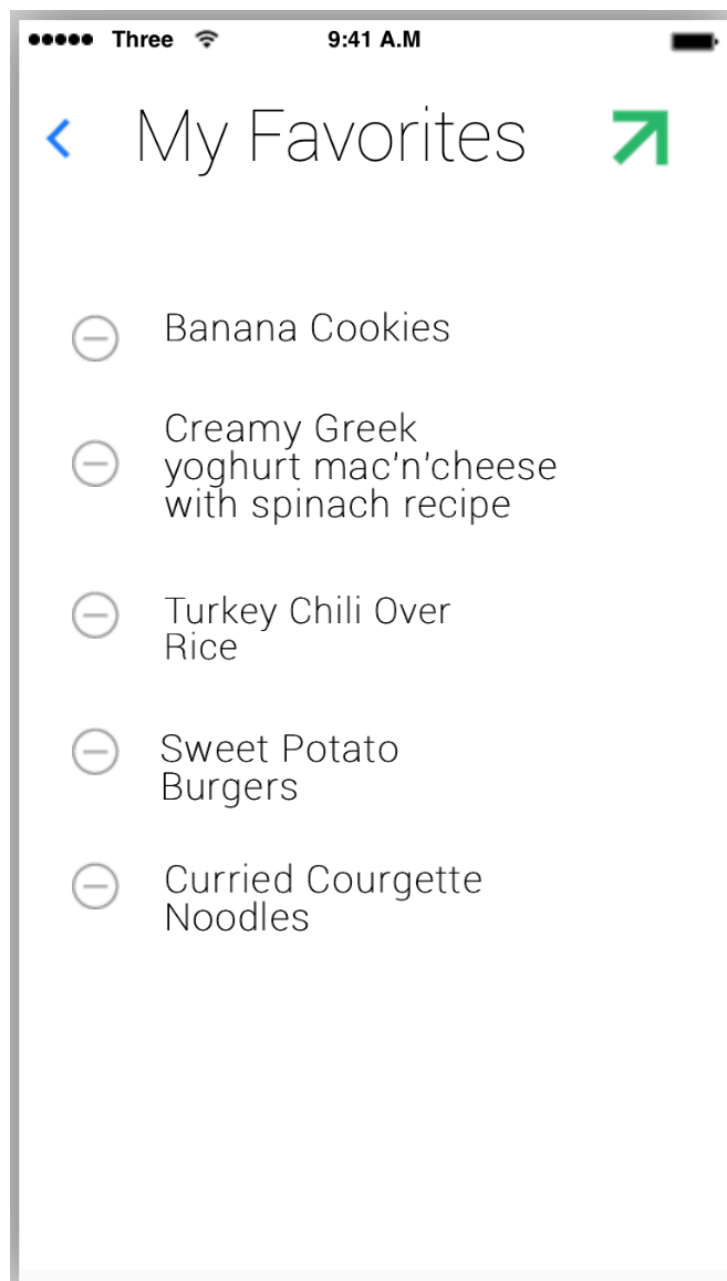
Other alternatives

We thought that an app was the best option to solve the problem we identified because

- The app is more convenient and accessible than a website as it can be used throughout the day while shopping, cooking at home, cooking at a friends' place and even while choosing what breakfast to have.

- It is more communicative and personal than a brochure or poster as it can potentially be linked to a dynamic list of recipes that can constantly be modified and appended to and allows you to sort your recipes and ingredients according to your preferences.

- It is more interactive and useful than a social media page with recipes and information because it also allows you to set reminders for shopping, assists in meal preparation through timer notifications and change the currency or metric system according to your location, thus offering more functionality.

Our application offers a potential solution to all the problems we were originally faced with and we believe that its implementation can help students effectively increase the rate at which they pick and make wholesome and sustainable food while living in self catered university accommodation, by addressing the individual issues of cost, effort and impact on the environment. The recipes have been selected carefully after browsing the internet and recommendations from students. We have made our recipes more abstract, only displaying them as cheaper with larger portions involving lesser effort so that our users can be concerned primarily with their meal and not be bothered by any other details.

4. Evaluation and Next Steps

Testing

Our stakeholders from the PD sessions brought out a few major points about the usefulness and feasibility of the application

➢ In the individual context, they were fascinated by the idea of sustainable consumption as they had been given a basic idea of freshly grown food while living with family and had developed this idea further while at university.

➢ They liked the idea of reduced cost; however, they thought that including daily nutritional averages and calorific content as part of the recipe could've made it more informative.

➢ They were interested in the further addition of educational information to the application like the benefits of veganism and how it can save water and resources.

➢ In the social context, they were slightly skeptical about veganism and could not make a clear decision about their following sustainable and healthy eating when they were out dining with friends/colleagues or having thanksgiving dinners back home. They thought that introducing the app idea among friend and family circles could help bring about a widespread change.

➢ At the material level, the participants thought that the actions taken by the university and the students to actively promote nutritious eating (like the Healthy Squirrel food cooperative) has helped create incentive to volunteer and acknowledge the use of applications to increase consumption of Fairtrade food.

Improvements

We thought of the following improvements that could be brought to extend our design idea

- Possibly include the social media component in the application interface. For example, people could sign in with Facebook and integrate all their favourite recipes into their profile and share recipes with friends.

- Work on the including more participant contribution into the application representation, like enabling the user to add and modify whole recipes, and have discussion forums for people with similar tastes.

- Develop a city specific framework that could point at the nearest stores selling locally grown food and and provide information about famous healthy food from the city.

We think that the government could assist in promoting our concept through government websites and integrate it with a list of food sustainability directives so that it can be marketed to a larger audience and considered as a social responsibility rather than an obligation on the people.

5. Reflections

Personal experience

I had a great experience working on this project with my team. I feel that we all got to learn a lot about the current food and sustainability issues and courses at the university, and the interactions with various stakeholders and other people throughout this course has extensively contributed to my understanding of the behaviour of people and their perspective about the food they consume everyday. The FG and PD sessions helped us develop new interview and analysis skills and also introduced us to new ways of data collection. Building the application interface has been a major reason in our developing better design skills. Even writing this report has holistically contributed to my presentation skills.

Contribution

I helped develop our initial questionnaire by adding to the set of recommended questions. I was also responsible for analysing and presenting two out of the eight questions we did in our fast hack presentation. I contributed to the focus group session by picking and dropping off the equipment, recording the entire focus group discussion and examining the initial perspective of our participants by viewing the first half of the video and writing down the main details with Ajda.

I also interacted with other people (like the managers at retail stores and the owners at take-aways) and was partly responsible for our PD feedback through the information provided by 2 of my friends from my accommodation on our application appearance and utility.

Challenges

We faced many challenges in the entire duration of the project. We would often come up with ideas and then scratch them off because the weren't feasible or were not contributing to our project. Many team members would be preoccupied at certain times and it was a challenge to successfully organise our FG and PD sessions considering the busy schedule of our participants. The technical challenges were mostly limited to the online app creation platform crashing or resetting. We would generally disagree on proposed models and argue until we had a solution that appeared perfect to the entire team. The hardest part of working on a real life problem has been restricting the urge to let a personal opinion on the matter influence the data and people we interacted with.

Change

We have been surprised by a lot of information that we came across during the various phases of this project. We did not expect our stakeholders to know so much already about sustainable and healthy food or the sustainable development policy at the university. The knowledge of our participants has specifically changed our approach to interacting with people over projects, and generally modified our understanding of the process of communicating.

6. Conclusion

Over my experiences, I have learnt that people are generally aware of the benefits of healthy eating, but are not actively doing anything about it. It is important to provide an incentive to students to think of food beyond something that is tasty and helps you last the day. An incentive that can be associated with through personal experience. An incentive that will benefit the community and its people.

The main points of our project are

- We have successfully been able to identify the key problems associated with self catered students selecting fresh food i.e., cost, time and energy.

- We have been able to isolate these problems, address each problem specifically, and find promising solutions for all of these problems.

- We have integrated these solutions into our design interface and have created the representation for an application that can potentially increase the rate at which students select healthier and sustainable food options

- We have tested our solution and tried to incorporate as much feedback as possible. This project in its entirety, has helped us collaborate, develop and improve the mock-up for an application interface that can change the way we look at food.

Citations

1. Cover Page image

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3. Image 2

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   http://www.meldrenachapin.com/blog/wordpress/2011/08/01
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4. Image 3

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   n.html?_r=0 [Accessed: 31st March, 2016].

5. Image 4

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9. GARNETT T., MATHEWSON S., ANGELIDES P. & BORTHWICK P., (2015) Policies and actions to shift eating patterns: What works? Food Climate Research Network & Chatham House. pp 6.

Appendix (Survey Questionnaire)

1. In which university self catered accommodation do you live?
2. What type of student are you?
3. Where do you most often shop for groceries?
4. What type of products do you tend to buy most often?
5. What factors most strongly influence your purchase decision?
6. How do you feel about buying fresh ingredients and preparing meals at home?
7. How frequently do you cook for yourself?
8. Would you use resources about healthy, sustainable eating practices if the university provided them?
9. Are your current eating habits similar to what they were before university?
10. What is your favourite type of food to eat/make?