



LFS 350 | Land & Food Systems

# Food Security: It Starts With Children

## Healthy Desserts Workshop



In collaboration with



Group 10

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# Introduction

## Background & Context

Our project is in collaboration with our community partner Gordon Neighbourhood House (GNH) located in the West End of Vancouver. At GNH, they strive to improve the lives of community members through activities and services offered throughout the year. GNH uses food as a method to connect with the community and to assist in decreasing the prevalence of food insecurity. Through various food initiatives, they strive to facilitate community building, improve access to nutritious food and recognize that all people have the right to food. Our goal is to successfully plan and facilitate a food literacy workshop for kids focusing on healthy desserts. We hope to inspire nutritional awareness with the kids by teaching them simple, fun cooking skills while displaying the importance of using healthy ingredients.



**Figure 1.** *Ingredients used in the workshop.*

## Significance

As contributing members of our food system and students of UBC, we are well-positioned to engage with our community and its food system. Programs facilitated at GNH hold great potential to be influential in terms of enhancing food literacy, which contributes to food security. The children will gain knowledge about their nutrient needs and the local, seasonal produce in which they can obtain these nutrients. With the understanding of how to maintain a healthy diet, children will minimize their risk of developing certain diseases (eg. type II diabetes & obesity) (Hu, 2011). This can lead to improved physical health, which can also be advantageous to mental health (Pappa et al.,

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2009). A healthy desserts workshop will help equip the children with essential food literacy skills such as food preparation, nutritious food choices, and concepts like locality and seasonality of foods.

## Project Objectives

The aim for our project is to inspire nutritional awareness amongst youth by developing their food literacy skills.

- ❖ Plan and execute a food literacy workshop to introduce healthy, flavourful desserts for the children in the Out-of-School Care (OSC) Program at GNH.
- ❖ Develop a nutrient-dense dessert recipe that the children will be able to make and enjoy as an after school snack. We will provide printed recipes of the desserts for the children to share with family.

## Methods

### Data Collection Approach and Analysis

#### 1 | Assessment of Food Knowledge

To get insight into the food knowledge level amongst the children, our pilot visit to GNH OSC included a brief activity based on Canada's

Food Guide. The children were asked to classify different foods into the food groups, with discussion about health benefits and preferences. This activity also allowed us to familiarize ourselves with the environment and accommodate the children's expectations of the workshop.



Figure 2. Workshop components.

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## 2 | Recipe Design

### Chocolate Chip Avocado Brownies

Prep time: 10 mins | Cook time: 25 mins | Total: 35 mins | Serves: 16

#### Ingredients

- 1 large avocado
- 1/2 cup unsweetened applesauce
- 1/2 cup maple syrup
- 1 tsp vanilla extract
- 3 large eggs
- 1/2 cup flour
- 1/2 cup cocoa powder
- 1/4 tsp sea salt
- 1 tsp baking soda
- 3/4 cup dark chocolate chips

#### Instructions

1. Preheat oven to 350 degrees Fahrenheit.
2. In a blender or food processor, combine avocado, applesauce, maple syrup and vanilla.
3. Add these ingredients to a large bowl and whisk in eggs.
4. Add in flour, cocoa powder, sea salt and baking soda and stir until well-combined.
5. Grease an 8 x 8 inch baking dish with oil and add batter. Disperse the dark chocolate chips on top of the batter.
6. Place in oven to bake for 25 minutes (slightly less for fudge brownies or slightly longer for more cake-like brownies).
7. Allow to cool for 20 minutes before cutting into 16 brownies.
8. Keep them on the counter in an airtight container at room-temperature for up to 2 days, or for a longer shelf-life store in the fridge or freezer.



Figure 3. Avocado brownie recipe designed for our workshop.

flour), to ensure that they are local and affordable. We aimed for an appealing and nutritious dessert.

## 3 | Workshop Design & Execution

The children were divided into three small groups by age, with one group member working with each. The 90-minute time slot included teaching new cooking skills and enhancing the children's knowledge on the healthy ingredients used. Group members introduced the ingredients and the associated health benefits in an age-appropriate manner. They also emphasized the healthy 'substitutions' such as avocados instead of butter and unsweetened apple sauce instead of sugar. Basic cooking skills such as whisking and cracking eggs were introduced in a practical manner as the children were in charge of these tasks. In order to gain insight about the effectiveness of our workshop, one group member

After reviewing the nutritional needs of the targeted age group (5-10 y/o) and relevant Health Canada recommendations, we determined that calcium and healthy fats are two nutrients that should be of focus in our dessert. Child acceptable macronutrient distribution range (AMDR) for children (aged 2-18), is 30-35% of total energy consumed (Uauy & Dangour, 2009). The benefits of calcium and healthy fats are shown in figure 4. Avocado was chosen to replace butter in the recipe because it contains high amounts of unsaturated fats (USDA, 2015). Cocoa powder and maple syrup were used as good sources of calcium (USDA, 2015). We also adjusted the ingredients (i.e.,

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was responsible for observing and noting the children’s involvement and workshop progress.

### Ethical considerations

Criminal Record Checks (CRC) and TCPS-2 training for ethical research were completed by all group members prior to working with the children. Allergy information was provided and neither recipes nor utensils were allowed to include any traces of nuts. During the workshop, all photos taken did not include any shots that would identify the children as requested by GNH.

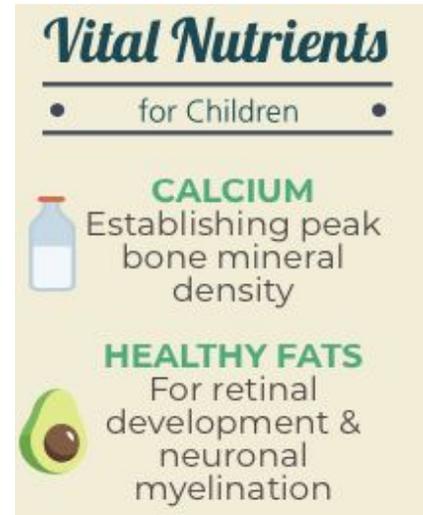


Figure 4. Benefits of calcium and healthy fats for children (Rideout, 2017; Uauy & Dangour, 2009).

## Results

### Initial Visit Observations

Through team observation in our pilot visit to GNH, we were quick to notice that majority of the children were capable of identifying the foods we presented to them. Most common foods, such as fruits, vegetables, fish and cheese, were identified promptly, but there were difficulties with identifying and categorizing foods that are seldom seen such as kidney beans. A slight lack of knowledge was observed amongst the majority of the children



Figure 5. Children’s comments prior to cooking.

when asked why certain foods were healthy versus unhealthy.

### Workshop Observations & Comments

Dramatic changes were observed in the children’s attitudes towards the avocados when comparing the statements made

prior to and after the cooking process (figures 5, 6). Although negative comments about avocados were made by almost all the children beforehand, it did not affect participation in

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the cooking process. They were diligent in identifying the ingredients used, and volunteered to add and mix them. The children showed impatience and excitement to taste the finished product. Several children approached our group members requesting seconds and expressing their interest in baking them at home.

Involvement and enthusiasm was evident among all ages throughout the entire workshop. Older-aged kids were very eager in assisting with each step, which made dividing the tasks more challenging. Obstacles were encountered when trying to maintain the children's attention. Despite the challenges presented, all group members were able to interact positively and educate the children about relevant cooking skills, as well as the nutrition behind each ingredient.

In follow-up conversations with GNH OSC supervisors, Jonathan and Danielle, they were impressed with our ability to effectively run the workshop as this particular group is usually quite energetic and talkative. They were also pleased that we incorporated avocados and were thrilled that the children showed such enthusiasm for them, as they were originally reluctant to try.



Figure 6. Children's comments post-cooking.

## Discussion

We believe that food literacy workshops have the potential to enhance food knowledge and diminish malnutrition amongst children. Studies have shown that teaching children about nutrition at a young age can have a major impact on future health (Perez-Rodrigo & Aranceta, 2003). The children's feedback to the use of avocados suggests the potential advantages of a simple food literacy workshop, changing how the children perceived healthy foods. A healthy dessert was chosen so that we could improve their food literacy (in a fun and delicious way), as this is shown to increase the probability in making healthier dietary choices (Blom-Hoffman, Kelleher, Power & Leff, 2004).

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In the short term, initiatives like this CBEL project will foster knowledge sharing amongst community members. As a group, it was important to ensure that the children left the workshop feeling accomplished and passionate. This increases the likelihood the children will share what they have learned and distribute the recipe with their family and friends. In the long term, these skills can support community members in their daily food-related decisions such as healthy food preparation, healthy substitutes, and healthy snacking. Although we acknowledge that income is the leading determinant of food insecurity in Canada (PROOF, n.d.), we strongly believe that food literacy can have major implications. Developing food-related knowledge and skills among children, is essential to supporting communities, especially those struggling with access to nutritious and fresh foods (TED, 2013).

This project was an example of uncertainty in the real-world context. Planning and executing this workshop illustrated the value of community-based nutrition and education, contrasting idealistic, textbook scenarios. It promoted adaptation and flexibility with the uncertainty of new environments and experiences in a professional manner.



**Figure 7.** Children adding avocados to the batter during the workshop.

## Limitations

One limitation of our project was time. We made three field visits to GNH, each for approximately 90 minutes. The short amount of time limited the amount of food literacy education we were able to introduce to the kids. If we were able to conduct further workshops, we would be able to cover other elements such as composting, meal preparation, and healthy snacking. To overcome these limitations, we believe it would be best to start as early as possible, using all of the flexible learning days to visit GNH. Being

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fully engaged and prepared for each visit is also key so that the kids can take away as much as possible from the short time frame.

## **Conclusion**

By educating children on food literacy skills, our project demonstrates a small-scale way to help address food insecurity issues and malnutrition. As food insecurity is becoming an epidemic in Canada, it is important that we educate early. Our healthy dessert workshop for the kids at GNH was a hands on learning experience that introduced food-related skills and information aimed at contributing to their food literacy and nutritional knowledge. While aiming to impact food insecurity through our food literacy workshop is not realistic, we hope our project and similar future workshops will contribute to the awareness and support of the food system by the younger generation.

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## Critical Reflections

### Student 1

After the completion of this CBEL project, my perspective on the concept of food justice has changed. Food justice has always been unclear and oftentimes overshadowed by the other term, food sovereignty. Due to the fact that both advocate for increased control of the consumption and production of food by the people that have been marginalized, the boundary between justice and sovereignty is more distinct for me now. Whereas food justice emphasizes the equity aspect of the food system, food sovereignty focuses in on people's rights to choose the consumption and production of food. Throughout this project, it is evident that many food justice initiatives are taking place in the community, in Canada and around the world. While the rights for people to eat and produce what they desire exist, it means that they are able to because of the disparities in the food system. This is compelling because this is noticeable even in West-End Vancouver where GNH is located, as it is often perceived as a wealthy neighbourhood. The imbalances between the affluent and the impoverished prevail - there were children that were very well-dressed but also people that were obviously homeless. Every person may be food sovereign, but those that are less fortunate may have their sovereignty "taken away" by capitalism and economic hierarchies that control the food system. It is eye-opening to come to the realization that these issues still exist in modern society.

### Student 2

Before the course, I had simple concepts about food justice, and ascribe most the problem to people themselves who are suffering from food injustice. For example, I believed that people who are relatively deeper in food injustice caused the issue by themselves for reasons such as: not trying to learn enough to defend their rights, or not working hard enough to be rid of the situation like poverty that they are in. However, during the course of the project, in both researches and practises, I found that people in food injustice are not the ones to blame. During our poster presentation, a faculty member discussed that "poverty is the root of food insecurity", which is closely related to food

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injustice. Through and after the project, I realized that it is not the people do not want to be rid of food injustice, it is that they cannot. Sociologists believe that poverty is a cycle, and it is really hard to penetrate class barriers; similar concepts apply here - once someone is food insecure and in food injustice, it is hard to be out of it. Low income and low level of education prevent certain people from access to ample, safe, palatable foods, and as minor groups, their voices are less frequently heard by the majority. After LFS 350, I learned to look at food injustice in a more comprehensive manner, and understand that the solution to it will require effort of every component of the society.

### **Student 3**

This course has shaped my understanding of food justice. Prior to this course my knowledge of food justice was limited. I was aware of the problem of food insecurity but hadn't made the connection to food justice. From this course, I have learned that food justice not only addresses the issues of food insecurity but also confronts race, gender and class inequalities and creates a system which finds ways to control, share and manage land. Learning this concept and how it applies within our community and around the world has improved my understanding of the food system as a whole. From this knowledge, I have been able to apply my understanding of these concepts into my community project. People face these issues all around our country even within areas which are typically thought to be more affluent. Asset-based community development, food security and food sovereignty are addressed at GNH. GNH creates programs which address these issues through community initiatives and fun family programs which include food. It is through this course that I had the opportunity to experience and work with GNH, applying these concepts first hand. To say my understanding of food justice has changed as a result of this course would be an understatement. Almost all of my knowledge on distinguishing between food justice and food security, sovereignty etc. has been as a result of this course.

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## Student 4

It definitely did. I won't be exaggerating if I say that I was illiterate about food justice; the concepts of food and justice did not seem related. Yet, through this course, I got the chance to explore and learn about their relation as we unfolded the various layers and aspects of food justice including gender, class and income, race and ethnicity. My understanding of food justice issues was initiated and developed as I started noticing the values and practices we have in our food system that contribute to the different food justice issues. It also relates to the fact that these practices and values have long been in our food system that they became entrenched in our minds and hence we are unable to critically evaluate them. These include women in the food system, traditional food knowledge, community-addressed food interventions, and even research in the food system. In addition to being an eye-opening knowledge, developing this understanding of food justice issues was essential for me as a future nutritionist. It allowed me to explore the opportunities and roles I can play to redress these food justice issues in my food system utilizing the knowledge, expertise, and critical evaluation I gained in this course as well as other courses in my degree. This course also completed the experience by providing us with the opportunity to view this knowledge in the real world context through our community-based projects as well as redress food justice issues within the time and resources available. All in all, this course was a miniature experience into the real-world of a nutritionist.

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