

An exploratory study into the food literacy of Cameroonian students  
living and studying in Montreal

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### **Abstract**

An exploratory study into the food literacy of Cameroonian students Living and Studying in Montreal

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This exploratory study is based on one on one interviews with (4) female Cameroonian students in Montreal, to understand what constitutes student food literacy when moving to a new country. The research questions are: (1) What is the source of knowledge about food for Cameroonian students recently arrived in Montreal and (2) Do they trust these sources of knowledge? The literature review pointed towards five important factors: health concerns; use of information through social media; culture and learning; constructivism and convenience. Data obtained from the interviews confirmed the importance of constructivist theory in learning; the increasing ease to access information through social media; nostalgia related to culture and maternal instruction and a large influence of individual differences in the context of globalization and immigration. Subjectivity and individual differences emerged as central in the process of gaining knowledge about food because not only does the meaning of food literacy change geographically, but also the information available to learners shifts constantly with new discoveries in the fields of health and food sciences. The mother figure and parental guidance are very present in the introduction of food literacy in Cameroon, but when Cameroonian students immigrate to another country, the maternal and parental influence, thus the cultural background have less influence in the food choices they make as compared to information gleaned from different social media platforms. Nonetheless, Cameroonian immigrant students in this study maintain some of the traditional influence on their level of food literacy at the same time as they expand their knowledge about food in their new environment, mainly through social media sources. In terms of learning and education applications, at a minimum, these narratives and the findings of this thesis point to the urgent need of better structured curricula for knowledge about healthy food habits for schools and for adult education contexts, programs and electronic platforms.

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## Key Terms

*Baton de manioc*, p.56: cassava left to ferment in water for 4 to 5 days and then crushed into a paste. The paste is then laid in thick lines into banana leaves and steamed. The result is a semi transparent and semi solid stick.

*Baskodjé*, (p.54): okra cooked with meat or fish, spices, palm oil, tomato sauce and potash to soften the sauce.

*Eru*, (p.48): sauce made with okok leaves (water leaves), palm oil and fish or meat.

*Foléré*, (p.55): sauce that contains long leaves from the sorrel plant cooked with peanut butter and fish or meat.

*Fufu*, (p.48): see *la boule*.

*Koki*, (p.47): a side dish made from black eyes beans crushed into a paste, mixed with palm oil and boiled in banana leaves to give a solid consistency.

*La boule*, (p.54): Also called *fufu*. *la boule*, is flour meal of cassava, plantain, potato, corn or rice mixed with hot water until it forms a semi hard paste. It is eaten as an accompaniment with a sauce.

*Ndolet*, (p.38): A sauce made from sour leaf and peanut butter.

*Ndonga*, (p.33): side dish made from melon seeds crushed into a fine powder, mixed with broth, spices, meat or seafood and then folded in banana leaves and boiled.

*Nivaquine*, (p.56): bitter tablets used as a curative and preventive treatment against malaria.

*Piment* (p.33): hot and spicy sauce made from a mix of green, orange, yellow or red hot pepper with oil, salt and other spices.

## **Chapter 1: Introduction**

The purpose of this study was to examine the food literacy of Cameroonians living in Montreal, to learn about their food habits and knowledge about the health benefits of given food before they migrated to Canada and the ways in which they adapt their diet upon arrival. The ingredients they use in Cameroon cannot all be found in Canada, so are they making reasonable and healthy substitution? To collect data, I conducted interviews with four female Cameroonian students. As such, this qualitative, exploratory study helped me develop a better understanding of food literacy of Cameroonians in the context of the Canadian experience.

### **Personal Statement**

I enjoy food, but at the same time I find the whole topic troublesome. My relationship with food is defined as “love and love me not.” I watched many documentaries about food, how it evolved, human’s relationship to food source, how it influences health, access to good or bad food, monetary gain from corporations and politicians, manipulation by science, advertisement, and much more. Therefore, before I started with my interviews, I already had an idea of what I consider food literacy, but I wanted to know if the participants I interviewed shared my view or even provide more insight about what constitutes good diet. The media sends us some messages about food and health professionals send us others messages. As a Cameroonian myself, I know an array of dishes and traditional ingredients, so I am confident that I can relate to the participants. Even though I left Cameroon when I was very young, I was still exposed to the culture and food through my family, mostly my mother and acquaintances.

I was born in Yaoundé, the capital. During holidays, my parents sent my siblings and me to visit my grandmother who lived in Ngaoundéré, a village in North Cameroon. I liked to stay there during

vacation because there was an absence of parental guidance and therefore, I enjoyed my freedom. From an early age, I saw adults butcher chicken, sheep and goats for consumption. We were closer to our food source so it was nothing out of the ordinary. I learnt to gut out fish and chicken before I was a teenager. Actually, my mother had a hen house with hundreds of chickens in the back of our home in Yaoundé. We also had ducks and guinea fowls running free in the back of the house.

I lived in Cameroon until I was eight years old. Then, my family moved to France, and then Belgium as my father's job required him to relocate. I do not remember missing much of the things I used to have, except the closeness to nature and food source. Another aspect of the change was evidently the fact that I now had white European teachers and classmates and the food that was served in the cafeteria was different too. I found it very bland. It felt very odd the first few months we moved to Brussels. My mother did not come with us right away. However, when she arrived, we started to eat more traditional dishes since she was mainly the one who cooked even in Cameroon.

At that point in time, I was much more preoccupied with making friends, schoolwork and discovering new things than what I ate. I can definitely say that I started to think about food as it related to health when I was around 17 years old. Before then, I ate what I was given and bought what I craved without any second thought for my health. Even though my mother taught me what was healthy or unhealthy to eat, I heard her but rarely followed her advice when it came to my craving for a particular food item.

As a teenager, I was also a fan of *manga*. I would look at food depicted in the drawings and try to find them in real life. I did not have access to Asian stores at the time, so I developed a desire for East Asian food. When growing up, I was part of the junk food culture because it was and still is a culture revolving around certain types of food. I started to realize the impact food can have on health right about the time I learnt about the meaning of obesity. To say, I realized that food could be



enjoyable and at the same time, it could become the obsession that leads us to seek medical care, cost us and the government money, but mostly costs us our life.

### **Statement of the Problem**

In North America, the U.S Food and Drug Administration and the Minister of Health in Canada are major organizations that regulate the safety of the food we find on supermarket shelves. Also, nowadays, people are becoming more aware of the health issues associated with diet. For a continent such as Africa, which has a colonial history and is still under the influence of Western financial control institutions such as the IMF, it is not always easy to determine if citizens are receiving proper education in food literacy. How is food safety enforced? We all have the impulse to trust the products in our grocery store because we think that it is in the best interest of companies not to harm their customers. Harming them won't be profitable in the long term. The tendency is that if an ingredient is too costly, it is replaced by a more affordable substitute, and sometimes, an unhealthy one.

The brand *Maggi* (see image 1) is used widely in Cameroon, and was acquired by *Nestlé* (a transnational company) in 1947. Many households use the *Maggi* cube stock to season sauces, meat and fishes, literally for the majority of their dishes. Those seasoning cube stocks contain ingredients that were shown to cause several health issues, but *Maggi* is still widely used by Cameroonians. The *Maggi* cube has become a main ingredient in many traditional dishes. The cube was introduced in Africa during the colonial era and has become an essential part of the African diet. In a study, it was found that *Maggi* cube seasoning contains between 7% to 21% monosodium glutamate, the common food additive and flavor enhancer, depending on the type of cube because there are several flavors on the market (Doussou-yovo, Toussou, Sezan & Yelouassi, 2016). This high content could have negative consequences on health. Households that use the cube do not only use one when cooking. They use several to cook one dish. One cube of *Maggi* contains already 90mg of sodium and according to

Doussou-yovo et al. (2016), a person should consume no more than 500mg of sodium daily.

Considering that about 72% of the total population of Cameroun over 15 years old was literate in 2010 (UNESCO, 2015), is it possible that the citizens who can read and write choose to ignore food labels when they buy food or is it possible that the complicated terminology used on products is the culprit?

Being food literate has never been more important than it is now because we live in a global world and are into contact with food in different forms (traditional or fusion cuisine, molecular gastronomy, vegan, bio, natural, with or without MSGs, gluten free, high or low in fat, carbs, sodium or calories). In turn, we are also facing a pandemic of food related illnesses such as high blood pressure, Type 2 Diabetes, cancer, heart disease and obesity. According to an article published in the online Journal of Global Health, chronic diseases are increasingly affecting the African continent, particularly due to globalization, urbanization, higher life expectancy and other factors (Aikins, 2010). Markets are solicited by investors (invisible figures to consumers) and supervised by overseas Central Bank, all of which are shadows that lie behind the curtain and give the consumer, the image they want them to see when they make food choices that can affect health in the long term.

I kept wondering about the authorities that are in charge of educating Cameroonians in the food choices they make. FAO or the United Nations Organization for alimentation and agriculture is a program that is present in Cameroon since 1978. It provides food security intervention and reinforces the country's capacity to come up with projects to improve alimentation. What has been done to increase food literacy among children or young adults? Is there a program to encourage youth to learn about traditional plants and food preparation? What are the figures or percentages or survey about food literacy and food education? Is there any link between the agricultural changes in Cameroon and chronic health issues in the population?

The discourse of food literacy in Africa tends to revolve around development, urbanization

and the impact of globalization. I have not found previous research that studies the eating habits or food literacy level of Cameroonians students outside of Cameroon and their dietary adaptation within the receiving country. However, Lyonga and Eighmy (2010) carried a study in order to examine the prevalence of foodborne illnesses among international students in the United States. They found that students who live in the United States for longer periods develop more foodborne illnesses than students who live there a shorter period of time. They believed that educating those students when they arrive in the receiving country can reduce effects of foodborne illnesses. Such research can assist me in the course of my study of Cameroonian migrants' food literacy in Canada. When I started researching previous literature about Cameroonians and their food habits, I was surprised to count the number of papers written by Cameroonians on the fingers of one hand. That is why there is a need for Cameroonian scholars to write about Cameroonian immigrants and their food issues as it relates to education and empowerment through knowledge.

The results of this study will, I hope, add to this body of literature and by doing so, complement previous researches about the way Cameroonian migrants adapt their diet in the receiving country. It will also add to the limited body of research about Cameroonian food literacy outside the home country. Findings could be beneficial not only for Cameroonian participants, but by extension to all new immigrants who have to adapt to new food ingredients and diet. Henceforth, the issues that are pertinent for this research are trust, knowledge and adaptation vis-a-vis the food we are given. We have left the era of food gathering and hunting. As such, we are for the most part, being fed by faceless figures hiding behind big corporation names. As such, the issue of trust is central to the discussion about food and that is a point I intend to study. Knowledge is the tool that can empower consumers to trust what they eat, but what is the source of that knowledge and can it be trusted? How can immigrants use this knowledge/trust to adapt to their new diet?

### **Research Question**

Little research is directed toward what constitutes Cameroonian students food literacy outside of Cameroon and by what means they acquired prior knowledge? As they move from one country to another, they bring with them their experience and skills, but ideas and opinions about food vary with time and place. This study explored Cameroonian food literacy in Montreal as it is crucial to understanding the learning experience, but also its evolution in a different setting. More specifically, this study asks the following questions: (1) What is the source of knowledge about food for Cameroonians? (2) Can these sources be trusted? To research those two questions, I ask the following sub-questions. How much did western food in Montreal change the traditional alimentary habits of Cameroonian students in Montreal? Do Cameroonian students have access to or can they afford traditional ingredients in Montreal? Do they use substitutes when they cook? If yes, which ones, why and how? Is the lack of food literacy education the real problem? How can they receive proper education in food literacy? Would Cameroonians cease to use certain products if they learn about the potentially harmful side effects?

### **Literature Review**

Food literacy is getting more and more attention in academia as people start to wonder about what society can gain from learning about food (Block et al., 2011; Palumbo, 2016). That leads to the broader question of: Why should we be educated in food literacy? In their book *The Purpose of Adult Education*, Spencer and Lange (2014) consider that the purpose of education for adults is “education for democratic participation.” That is, education as a way to maintain cultures, invest in human capital and promote social changes (Sumner, 2013). Can the same be said about food literacy? Does learning about food allow us to invest in the future of food knowledge and the adoption of a healthy diet and

safer food choices? The literature about the evolution of food consumption and the health problems associated with it seems to point in that direction (Flowers & Swan, 2012; Pendergast, 2012).

Food literacy is defined as the “degree to which people are able to obtain, process and understand basic information about food in order to make appropriate health decisions” (Wiser Earth, 2007, cited in Summer, 2015, p.83). For other scholars, food literacy is an individual’s food related knowledge, attitude, and skills that influence the way choices about food are made, choices that can affect diet, health and the environment (Benn, 2014, Howard & Brichta, 2013; Palumbo, 2016). Food literacy is defined, not only in terms of knowledge, but also in terms of the ability to get that knowledge. Before one knows, one must first learn or experience it in a cultural setting (Flowers & Swan, 2012). Still, it really is not enough. How affordable and accessible are healthy food choices compared to the present choices that are not so healthy? There must be some kind of incentive to learn. Block, Grier, Childers, Davis, Ebert, Kumanyika, Laczniak, Machin, Motley, Peracchio, Pettigrew, Scott and Van Ginkel Bieshaar (2011) add the motivator factor to their definition of food literacy, making it, not only about food knowledge, but also a matter of personal choice as an individual chooses or not to apply this knowledge, depending on the context (Palumbo, 2016). Arens and Hamilton (2016) also mentioned the question of choice when they studied the way in which consumers opt for alternative food ingredients. Choices become a matter of option. Before they make choices, are they given enough options to make the appropriate food decision? What is available and affordable in terms of healthy substitutes in their context? Ultimately, the options they have will determine the choices they make. However, in this study, Arens and Hamilton regarded substitute foods, not in term of unhealthy alternatives, but in term of alternative food for the unhealthy originals.

Since I am looking into the food literacy of Cameroonian students in Montreal, I will have to keep the cultural perspective of the participants in mind. What is healthy food for them? Bisogni,

Jastran, Seligson and Thompson (2012) made a study to understand what people in developed countries call “healthy food.” Even though the interpretation of what healthy food is wide and complex, their study found that one of the ways one can define healthy food is by taking into consideration a number of components (i.e., the ingredients, where the food was produced and how, the health related outcomes of consuming the food, etc.). The meaning of those components will also depend on the person’s life and cultural experience and age. The interpretation of what healthy food is depends on each country, culture and individual.

In an attempt to give a broader definition of food literacy, Truman, Lane and Elliott (2017) identified six themes that recur in the literature: skills, behaviors, knowledge, emotions, culture, food systems and food/health choices. They consider that a definition that would take into account all of those themes can be a good start to measure food literacy as there is no defined clear guideline to measure it.

Otero, Pechlaner, Liberman, and Gürcan (2015) raised the issue of the neoliberal diet and the way it brought positive changes globally, but at the same time, it brought negative alteration to the global diet. We can consider that as such, food has two facets, the positive that is closely followed by the negative. Traditional food habits encounter drastic changes as populations are constantly shifting and young generations favor a western way of life and turn away from their heritage. On the other hand, the neoliberal discourse also favors the privatization of resources and as such, even though food quantity has increased, food quality has decreased. In this environment, it is important to study the changes in the food literacy of a population that moves from their country of origin to another.

As for the body of research on food literacy of Cameroonian citizens, there is not much literature available on the topic. Dapi, Nouedoui, Janlert and Haglin (2005) conducted a comparative study of urban and rural food habits in Cameroon within the context of globalization. They looked at

the food choices available in both urban and rural areas and the effects of diet change on the younger generation. Another study looked at the availability and adequacy of wild food in Urban Cameroon and correlated these with changes in diet (Sneyd, 2013). Researchers who have analysed the food literacy of Cameroonians tend to do so within a Cameroonian context. The study conducted by Colatruglio and Slater (2016) on young Canadian adults could help the analysis of young adults' transition from one milieu to another. In their study, young adults move from the home environment to independent living whereas I am looking at young adults who move from a home country to a host country. There is a big difference but in both cases, the participants have to make independent food choices and have to face similar constraints such as time, money and knowledge. It turns out that even though there is not much research on Cameroonian food habits outside of Cameroon, there is still a lot of research on food literacy related themes. I listed some of the themes I find relevant to my present research as listed below.

- Health
- Social Media
- Culture and Learning
- Constructivism
- Convenience

## **Health**

There have been many studies in the field of nutrition and health science that demonstrate a correlation between health and food literacy. Some scholars consider that food literacy is an individual matter, an individual relationship with food that depends on environment, cultural, political and economic factors. As such, poor food choices lead to poor health (Sumner, 2013). It was also reported

in a study carried by the Senate Committee on Social Affairs, Science and Technology (2016). They observed a correlation between eating habits and health issues linked to excess weight. The report offers steps to help Canadians eat better. In an attempt to enable Canadians to make those healthy food decisions and in an effort to promote health and safety, Health Canada (2011) developed healthy eating policies and food standards that are available on their website (Eating Well with Canada's Food Guides, 2011). It suggests regimen for different age and sex groups, recommends serving sizes and food variety, proposes substitutions for oils and advice on water intake. Health Canada advertises four food groups and recommends consuming different quantities for each. For example, for an adult from age 19 to 50, 7 to 10 servings of vegetable and fruits is recommended daily depending on gender; 6 to 8 servings of grain products; 2 to 3 servings of meat and alternatives and 2 serving of milk and alternatives. On a table near the recommended servings, there are suggestion of serving sizes in cups, grams and milliliters. A small table explains how to count servings in a meal with an example of a meal constituted of broccoli, lean beef, brown rice and an apple. Each ingredient weight and volume is measured in order to determine the serving size. This makes it easier to picture portions. There is also a small table on the guide pressing consumers to read labels and to choose products with less fat, sugar and sodium. It advises against the consumption of saturated fat and offers daily quantities of alternative choices such as olive or canola oil (2 to 3 tablespoons daily). This guide is comprehensible because it provides both textual and visual information.

The Senate Committee on Social Affairs, Science and Technology (2016) also provides suggestion for food label literacy and label transparency issues among other food related health issues. A study by Sinclair, Hammond and Goodman (2013) found that a large minority of Canadian consumers are confident in their understanding of food labels, but they overestimate themselves and by doing so, they make choices that would impact their health. Front package labeling and the clear



depiction of nutrients on products are thought to ensure consumers have access to information in order to make informed choices. I note that Health Canada guide and the report of the Senate Committee on Social Affairs, Science and Technology approach the subject of food related health issues with the conception that choices are taken up by the consumer and their socio-economic environment. However, even though the Senate initiated a fight against ambiguous labelling on food products, they still do not point out the real problems that consists of practices of industries or corporations that advertise and put their products on the market. In an article, Trauth (2015) examines food labeled as natural, as well the rise of obesity in the U.S. He mentions that according to a study conducted by the Shelton Group in 2009, more and more people choose products that carry the label natural. At the same time, more and more people suffer from obesity. It may be due to the fact that because a product is labelled natural, consumers tend to consume it in large quantities thinking that it is healthy. Another explanation is the fact that in the U.S, the term *natural* is not defined by the Food and Drug Administration. As such, food companies can produce food that contains GMOs and have a certain liberty to define what they consider to be natural. The ingredient list of packaged products lists ingredients by their names, names that consumers may know, but when it comes to specify what the natural ingredients are, companies just list them as *natural flavours* (see Image 2). In an article published on Life by Daily Burn, an online resource for healthier lifestyle, Woerner (2015) says that ingredients listed as natural are not too different from ingredients listed as artificial. According to her, products carry the label natural only because they contain chemicals found in real ingredients, but those chemicals have been altered in labs. Consumer's perception of the definition of the word natural is used to advertise and encourage purchase.

The approach of Health Canada captures that of Sumner's (2013) for whom food is linked to choice. That means that consumers are accountable to know the practices used by the food industry to

trump them. One of those practices is mentioned in a study in which it was found that small prints on food label discourage most participants from reading it (Bazhan, Mirghotbi & Amiri, 2008). It suggests that clearer food label would increase the chances of consumers reading them. On the other hand, Reiher (2012) opposes such a view of the consumer as being the sole responsible for food related health issues because for Reiher, consumers are influenced by factors that are out of their control. The majority of the literature about food related health issues and food labels agree on one thing though: food literacy increases the chances of eating healthier.

### **Social Media**

Learning is social (Mezirow, 1994) and social media is a learning place that is accessible to anyone who has access to the NET. Social media platforms create an interactive exchange of information between people because information moves fast and is not limited to one geographical location. One thing that is noticeable with the movement of population from one country to another or from one continent to another is that information is available whenever one is. It comes from all over the world and is available to everyone, in different forms. Platforms such as Skype, Whatsapp, Youtube, Pinterest, Instagram and Twitter allow users to find answers to their questions. Questions which formerly required the help of a parent, a book or a teacher make conventional references somewhat obsolete. In his book, *Transforming Education with New Media*, Peter Depietro (2013) says that information is fast, but also malleable. The media are very good tools for education because it is easily transferable. Depietro stipulates that effective learning needs structured teaching, meaning a guide that will lead student's progress to an ultimate learning goal. However, social media or mobile learning, as Depietro calls it, lacks that structure and organization. The fact that information is available at all times also contributes to student incapacity to retain information. His experience as a professor of new media has taught him that students who looked at teaching materials in advance on Blackboard

tend to feed their curiosity rather than respect a methodical process of learning step by step. Nowadays, Google and YouTube have become the reference search engines. These platforms contain information from anyone around the globe and do a good job at feeding our curiosity. We can therefore imagine that when information about food circulates on the Internet, it reaches users of social networks even if the truthfulness of the content was not established. So, how much of this information participants get from social networks is wrong? We must take into account that, although the Internet is a learning tool, there is always a risk that we will receive wrong information because as Depietro stated, this is a technology that is malleable and is not limited to time and space.

Furthermore, users have become incredibly visual. That is why creators of social media outlets built their platforms with the user in mind. They are designed with colors and pop up notification to make the users addicted and encourage them to always connect to either respond to messages, or find out what is happening, as soon as they are near their devices. According to Messaris (as cited by Newfield, 2011), part of the purpose of visual education is to enhance comprehension and cognitive abilities. With images and text, it is easy to pass messages, feelings and ideas through, easier than when using text or sounds alone. Social media users are visually literate and as such, they are capable of making critics of what they see within the limit of their understanding. Whether that critic is appropriate depends on factors such as the user's knowledge or how the information contained within the image was meant to be used. When I designed the interview questions for this research, I considered visual images to be a factor in food literacy because appearance can play a role in food choices. I heard about animal abuses in slaughterhouses, but I never gave it another thought. After my friend sent me video on Facebook depicting the treatment of animals before they are killed, I stopped eating meat. Afterwards, I received a Pinterest photo of a sculpture by artist Liu Qiang (see Image 3). It depicted a crowd of people stepping on each other in order to drink milk from a cow's udder. I cannot

tell if it was the photo or the text describing it that shocked me most, but fact is that visual images can be decisive in the choices we make about food.

## **Culture**

Before we even speak of culture, we should speak about the first starting point of said culture, that is, the home environment, the starting point of informal learning. Makoka (2013) studied the impact of maternal education on child nutritional status in Malawi, Tanzania and Zimbabwe and found that the more educated mothers of the study were, the less their children encountered health issues associated with nutrition. It is interesting because in another study, it was found that even though parents knew what was healthy such as the daily recommended consumption of fruits and vegetables, they did not always practice healthy eating and consequently, their children copied their behavior (Hanson, Neumark-Sztainer, Eisenberg, Story & Wall, 2004). Another research carried by Scaglioni, Salvioni and Galimberti (2008) found that children develop the same alimentary habits as their parents, especially in the early stage of the child's life. They tend to mimic their parents' food preferences and motivation. That in turn could be a determinant for weight gain and chaotic food intake. They learn by watching their home environment. In Makoka's study, the mother plays an essential role because she spends much more time with the child than the father does, while in Scaglioni et al. (2008) study, the accent is put on mother preoccupation with weight control. This issue would not have applied to the African mothers a long time ago. Indeed, in North Cameroon for example, being thin was not always correlated with being healthy.

This mind set has changed now with the onset of social media and the media portrayal of the ideal body. Scaglioni et al. (2008) findings can be applied to my research in the instance where mothers attitude toward food influence the relation children develop with food. What does culture have to do with food literacy? According to research, it is closely related to the choices we make from

childhood to adulthood. First of all, the meanings we give to depiction of food depend on the individual cultural background. According to Koc and Welsh (2002), it is complex to dissociate between an individual's cultural baggage and the baggage brought by global influence, between home and abroad. Growing up in Brussels in the 90s, I remember seeing advertisements about yogurt on TV. It depicted a yogurt container and in the background, there was a slim nude woman. While such images may encourage some to buy this brand of yogurt because they associate it with a thinner silhouette, for others such as myself, it had the contrary effect. It disgusted me and kept me away from ever buying that brand because food is the last thing I associated with nudity. In my family, sex was a subject that was taboo, so anything related to nudity and the exposition of the body was supposed to be a private matter. As such, I believe that culture should be considered in this study, especially as participants left their country of origin for another that may not share the same values. Even people who are from the same culture, share the same religion and economic status can have different values, so when an immigrant with a different cultural background enters that same social sphere, he faces different and sometimes alien concepts and ideas. That may be cause for problems. Berkes (2010) stated that the theory of multiculturalism has been criticized because it does not solve cultural problems. She defines multiculturalism as a need to have one's own culture recognized, to stand out from the mass. Since there is clearly a merger between home and host country, she considers that multiculturalism becomes a response to the homogenization caused by globalization. It is reality for most immigrants whose culture differs from the host countries.

To attribute the same behavior regarding food to all Cameroonian immigrants is impossible. It would be impossible since there are many ethnic groups in Cameroon, each with its own customs and within those groups, people with different values because we must keep in mind that globalization has changed ethnic groups that were once isolated. For example, all participants in this study come from

different regions of Cameroon, regions with different food ingredients, languages, tradition and religion. They also have their own sets of cognitive and behavioral habits. Since culture depends on factors such as cognition, emotion and behavior (Handwerker, 2002), it is impossible to grasp exactly what constitutes one's culture and predict how one would behave outside of the scope of influence of that culture. For that matter, Handwerker gives a very open definition of culture as the knowledge people use to live their life and the way in which they do so. So, I can distinguish similarities and differences between the food literacy of Cameroonian students in Montreal, but keeping in mind that even though culture plays a role in determining food choices, those choices depend also on every individual's life style: are they social media enthusiasts? Are they obsessive? Do they have a strong sense of belonging to one culture and not another or are they cooks?

As I said, not all Cameroonian immigrants are the same, but I can say from experience that girls born in a Sub-Saharan African family with a mother present in the household tend to learn how to cook during adolescence. In their five years longitudinal study of young adolescent and young adults in 31 middle schools and high schools in Minnesota, U.S, Laska, Larson and Neumark-Sztainer (2011) found that a higher number of women (40.8%) in their mid to late twenties cooked most days at home, compared to men (23,9%). Young adults who cooked during adolescence and have traditional mealtimes (eating with family for example) tended to make healthier food choices (Laska, Larson, & Neumark-Sztainer, 2011). I consider that taking traditional mealtimes are still important to the African family, so I wonder if I would find the same outcome with my participants.

### **Constructivism**

Since they left their country of origin, will the participants in my study change not only their eating habits, but also their beliefs and behaviours towards food, beliefs that have been taught to them since childhood? After conducting a qualitative study of participants' behavior using questionnaires

and assessing their attitude towards food handling and preparation, Mezirow (1994), Mullan and Wong (2010) determined that even though participants learned about healthier food hygiene behaviour, that knowledge did not necessarily lead to habit change. That observation was substantiated by the paper of Koc and Welsh (2002) in which they depict such changes and resistance to new inputs. Mezirow (1994) explained that learning to make meaning involves a structural process of having expectations based on cultural assimilation and interpretation that, simply put, make us biased. It explains the reason why we sometimes resist explanation or concepts that do not fit into our psychocultural understanding of our reality. For that matter, he defines constructivism as an orientation which holds that the way learners interpret and reinterpret their sense experience is, central to making meaning and hence learning (Mezirow, 1994). However, Mezirow adds, it does not stop us from wanting to understand the working of our current life. On the contrary, when prior beliefs and assumptions do not fit into our standard of living, we criticize their origins and examine their implication in order to make sense of our world. As a result, we can adjust our opinions, beliefs and feelings. That involves a degree of assumptions and criticism of self and previous learning (Mezirow, 1994). Koc and Welsh (2002) define adaptation as “whether and to what extent individuals or social groups adapt to new patterns or cultural conduct, and willingly include different forms of behaviour into their everyday practices” (pg.47). They consider that ethnic identity within a country of immigration encounter a change in diet and food habits that is neither from their country of origin, nor from the receiving country. That means that immigrants adapt by forming an identity that retains a little of their old ways and some of the new ways.

At the same time as they retain the preparation of traditional meals, immigrants become sensitized to the eating habits of the host country. A clear example is the notion of food substitution, an adaptation to the lack of a food ingredient or meal by finding another alternative that shares similar or almost similar characteristic as the original. It demonstrates a desire to maintain a food culture using

ingredients that are found in the new environment. However, adaptation to a host country's culture does not mean that immigrants would adopt every aspect of that culture. For that matter, in his explanation of social structure, Giddens (1991) suggests that traditions and what is considered socially acceptable can change when they are ignored or when the behavior is not repeated anymore. A clear example is the consumption of kola nut or *cola nitida*, a sour nut with high caffeine content native to the tropical forest of West and Central Africa. It is given to guests visiting one's home as a sign of welcome or friendship in North Cameroon and also chewed during events such as weddings. My father used to chew them in Cameroon and always had some at home in case guests visited. When we moved to Brussels, kola nuts and drinks were the first refreshments he offered to Cameroonian guests visiting. As the years passed, kola nuts disappeared altogether from our home and were replaced by peanuts. Nowadays, I noticed that my father never chews kola nuts even though he has the opportunity to get some whenever he travels to Cameroon. Considering that, can this type of behaviour be observed in Cameroonian student immigrants in Montreal?

### **Convenience**

Convenience is a strategy used by the food industry to make their products more affordable, more accessible and easier to consume. As such, convenience is an important factor in the study of Cameroonian students' food habits. There are two reasons for it. First of all, it is because the status of being a student tends to demand an effortless and time saving access to food. Secondly, because as immigrants, food items that are not found in the receiving country are substituted or replaced when there is access to alternative foods that are within reach. A study conducted by Costa, Schoolmeester, Dekker and Jongen (2005) assessed participants age 18 and higher and found out that they tended to cook home-made meals more often during the week-ends than they did during week days because they could put more time and effort in meal preparation. According to Costa et al. (2005), this desire for



convenience is not only dependant on economic constraints, but also of moral issues associated with health. As such, an individual may select a convenient food option, but his choice is complex because it is influenced by different factors that may or may not be out of his control.

## **Chapter 2: METHODOLOGY AND DATA PRESENTATION**

### **Design of the study**

#### **Research Methods and Procedures**

From January 2018 to April 2018, I collected data from four female Cameroonian students aged between 21 to 39 years of age, living in Montreal and who are still studying or were recent graduates. The focus were Cameroonian participants who were more likely to have some experience in preparing food and making food decisions that would impact them and their familial entourage. As such, I asked friends who were acquainted with Cameroonian students to recommend potential candidates and invited additional candidates during an event organized by the Cameroonian Student Diaspora in Montreal. Some invitees volunteered and I was able to recruit four female participants in total.

Once potential candidates were selected, a meeting was set for an in-person interview during which each participant signed a consent form. For each of the four participants an interview based on 52 items was conducted (Appendix A), during one hour or less in the setting of their choice. This arrangement was made to ensure that they were comfortable in a familiar environment. Two interviews were conducted in home kitchens, one was at the office of the African Student Association of Concordia and one was conducted over the phone for a participant who unexpectedly travelled overseas. With the participants' permission, the meeting was recorded with a voice-recorder. As for the questions, there was a compilation of demographic information, such as "what region of Cameroon are you from?" It allowed me to gather information that may help to understand the rest of the data. I also used open ended questions, "what do you think is a good diet?" Those questions helped to engage discussions. Questions explored food literacy and the learning process. According to Atkinson (2001), qualitative research incorporates the voices of social actors through narratives, life-

histories, diaries and other documents of life. This is what was intended to be collected: social actors and their life history. Participants' narratives provided context to understand their learning process and relation with food. Narratives do not provide a perfect picture, but help to see emerging themes or phenomena (Carter, 1993).

The journal entries were made during and after meeting with the participants. Notes of my observations were taken to complement the interviews and serve as a future reference for data analysis. I agree with Belk, Sherry and Wallendorf (1988) when they say that the journal is a very effective interpretive tool that provides ample information of the research process and the researcher's personal growth. That is why I kept a journal of the interactions and observation I make during the interview sessions. It allowed me to look for patterns in the food literacy of the participants, patterns which pointed to themes that are central to food as it relates to literacy. As such, this is a narrative research that brings participants' life experience together in an attempt to create meaning.

During the interview, the voice recorder was on a table and was not manipulated as to avoid it being a nuisance for the participants. At first, I asked probing questions about the participants' life, and then I asked general questions about their knowledge of food. This part was mostly undertaken as an exchange. Care was taken to allow more input from the participant and less from me. Lastly, questions that are more specific were asked to determine recurrence of certain themes throughout the interviews.

After the transcription of each interview, a copy was sent to the participant for approval, to make sure that everything recorded accurately reflected their thoughts. Upon approval, data was analyzed through an exploratory framework using the research questions to assign coding. As I was engaged more and more in the analysis, I realized that I needed more output to determine visible duality between participants if there was any. As such, I sent a one page post-interview questionnaire to all participants to reduce ambiguity in the responses that were given during the interview. The

established map of interviews and questionnaires was then used to do a descriptive analysis of the emerging themes.

### **Limitations**

I engaged in discussion related to food and food literacy with the participants, and made the interview as close as possible to an ordinary conversation. Indeed, as a Cameroonian woman and a researcher conducting studies with Cameroonian participants, there was the risk that I would be viewed as an authority within the same imagined community even though we share the same cultural and national heritage. Ganga and Scott (2006) consider that this is one of the issues when *insider research* is conducted. That is, when social interaction between researcher and participants who share the same heritage becomes unequal because the researcher is not perceived as belonging to the community. I feared such trend throughout the entire interview process, but I was glad of the overall outcome because the dynamic between the participants and me was co-constructive instead of a researcher-participant relationship. Participants were free to contribute by adding observations of their own. They were not limited to the questions I asked. Besides, the questionnaire that was sent to participants let them fill in answers in a private setting where the weight of the researcher gaze would not influence the way they respond.

In studies such as this, objectivity is a major issue. Lincoln and Guba (1985) worked extensively on validity issues and it is through the scope of their ethic that possible concerns with the structure, execution and the interpretation of the study can be deciphered. First, there is the issue of conformability (Lincoln & Guba, 1985), mainly concerned with my interpretation of the interview responses and conversation, the risk of it being prejudiced and judgmental during analysis of the data. As I am a Cameroonian student, I had my views and ideas about the questions I asked during the interview. I made sure that my opinion did not compromise the participants' statement about food

literacy and tried to consider all possible constraints such as time, marital status and capital. Then, there was the issue of dependability of measure, meaning that as the person who interprets the findings, I constantly adopted the same conduct with all of my participants and data.

There is also the notion of credibility. Was I articulating what the participants meant when I started to interpret the data? One way to overcome this was to have participants review the accuracy of the information before it was submitted (Lincoln & Guba, 1985). Also, in the fieldwork, the mother tongue of the majority of the participants I interviewed was English, only one participant chose to be interviewed in French. I have an English and French version of the interview questions, but when I translated what she told me into English, I did so carefully in order to give an accurate rendition of her responses.

Lincoln and Guba (1985) speak of the notion of transferability, which is the probability that an interpretation of data can be generalized if the context changes. It's an important notion considering that literacy is more often than not followed by cultural and social factors that are always contained within a particular context. Food literacy is not different. Will the result of this research be shifted to other social groups? One way to assure context transferability was by making thick descriptions during the study in order to be as specific as possible. That was achieved by asking clear and specific questions, but also by making an extensive rendering of the participants' background.

Possible ethical issues that needed to be considered were the mention of names. I used pseudonyms in order to identify participants because they will be sharing personal information about their values, beliefs, lifestyles and background. I transcribed each participant's interviews and contributions to the discussion and gave them a copy of the transcription to vet, so they had the opportunity to review and revise the transcription and indicate if they saw any details they find erroneous or too personal, to have these removed. They could also add new information that they

deemed relevant after reading the transcription of their interviews and their contributions to the database. They had two weeks from the date they received the transcription to return it to me. That date was also the last date by which they could decide to remove their contributions to the database. After that date, analysis of data and thesis writing began and it was not possible to extract their individual data from the database. The consent form let participants know that they had the option to edit (review, revise, add and deduct) the transcript of the interviews and that they had the option to withdraw from the research at any time until a deadline specified at the time of the transcript review.

Lastly, I also considered the fact that the presence of a recording device may be intrusive and may have changed the way the participants behaved. At the beginning of each interviews, I reminded participants that the session will be recorded. The audio recording device was small enough not to be conspicuous. To reduce the anxiety of the participant, it was not manipulated until the end of the interview. In addition, the fact that I was taking notes can be seen more as an evaluation of the participants' knowledge than as an observation. I tried to avoid that impression by letting the participants know at the beginning of the study that they were in no way judged for their actions and responses.

### **Presentation of Data**

To simplify the presentation of the data, I first present the profile of each participant and then data from the interviews and questionnaire of the participants individually. In order to inquire about the food literacy of Cameroonian students, I must first understand what they do and how they learn to do what they do. This process of learning started in Cameroon and progressed throughout their life. Secondly, I study the foundation of their belief and analyze the progression of their food literacy.

### **Profile of the Participants**

Participants in this study have different professional interests, but all of them are or were recent

graduates from a University in Montreal. Pseudonyms were used to refer to each participant in order to protect their identity. The participants' names have been listed in alphabetical order for clarity and all information in their profile reflects their situation at the time of the interview.

Amina was a 21 years old student in translation in the BA program at Concordia University. She was in the process of graduating. She was single and had no children. She grew up with both parents.

Djenabou was a 37 years old mother and wife who pursued health care studies in Canada, but received a BA degree in Business in England. She is a stay at home wife and mother now and takes care of her three children. She lost her mother when she was young and even though she had her father, she was raised by her aunt.

Marine was a 31 years old female who was pursuing studies in Sociology at Concordia University. She had a MA in Corporate Communication from an American university. She was single and had no children. She grew up with both parents.

Nicole was a 39 years old professional mother of four. She had a BA in accounting from Université du Quebec à Montreal. She is now freelance. She lost her mother when she was very young and was raised by a female acquaintance of her mother.

Table 1.

*Profile of the Four Participants*

|                                   |             |  |  |                  |
|-----------------------------------|-------------|--|--|------------------|
| Pseudonym                         | Amina       | Djenabou   | Marine   | Nicole           |
| Age                               | 21          | 37   | 31   | 39               |
| Children                          | No          | 3  | No   | 4                |
| Marital status                    | Single      | Married  | Single   | Married          |
| Region of Cameroon                | North West  | Boya   | North  | North East       |
| Years of emigration from Cameroon | 2003        | 2007   | 1993   | 2005             |
| Year of arrival in Canada         | 2014        | 2014   | 2016   | 2015             |
| Last trip to Cameroon             | N/A         | 4 years ago  | N/A  | Often            |
| Program of study/<br>Major        | Translation | Business   | Sociology  | Accounting       |
| Degree(s) held                    | In progress | Diploma in Law<br>MA in Business<br>Law<br>Professional studies<br>in health care<br>Diploma in career<br>advising | BA in<br>administration with<br>focus on<br>international<br>marketing<br>MA in Corporate<br>Communication | BA in Accounting |

**Plan for Data Presentation**

Table 2: Data from Amina followed by Amina's story as told by the researcher.

Table 3: Data from Marine followed by Marine's story as told by the researcher.

Table 4: Data from Djenabou followed by Djenabou's story as told by the researcher.

Table 5: Data from Nicole followed by Nicole's story as told by the researcher.

Table 2.1.

*Data from Amina*

|                                |  |
|--------------------------------|--|
| <b>1. Food literacy</b>        |  |
| a) Healthy diet                | <i>A good diet would be...balance in term of the different quality meal that you can have in terms of like the meat, the vegetables, the carbs, the pasta, rice and so on. But also... like having... enough meals throughout the day and the correct portion throughout the day and not eating too late.<br/>[...]So, what I usually do is eat like vegetables, like a stir fry with a meat which is like chicken most of the time and then like...like sweet potato or rice or something like that as well. I like, like to think it's balanced but...</i> |
| b) Food and nutritional labels | <i>I'd say [I understand] most. Definitely not all. In a can where there is no preservative, I don't really trust them, no. [laughter]</i>   |



|   |   |
|---|---|
| c) Food safety                                      | <i>Definitely where I buy chicken from differs. Like in really big supermarkets, I don't really buy meat from there, like I buy meat from smaller places. I just want to see who cuts the meat in front of me. That's my biggest thing, you know. As long as it is a butcher and I see him cutting, not just like... a plastic wrap. And I don't know what was touched by a third party.</i>  |
| d) Traceability                                     | <i>Most of the time, I have no idea where they come from. I have no idea. Things like fruits and vegetables, I know for sure right now are not from Montreal. You know what I mean? But where they are from? I don't know. In Cameroon, I don't eat grocery food. It's all...like you go to the market where it's someone who either like farmed it themselves. Like you can trace the source of where it came from very easily so. [...]I don't know where they come from, right! But a lot of the time, there are like markets where it's farmers come to sell their things</i>                           |
| e) Characteristics of Cameroonian dishes            | N/A   |
| f) Health associated issues with Cameroonian dishes | <i>They are very unhealthy. In term of the amount of oil that is in it. It's a lot of red meat. But in terms of like how organic the ingredients are, they are organic. It's just like when we put them together. It's not exactly the same thing anymore when cooked.</i>  |
| <b>2. Learning experience</b>                       |   |
| a) Acquisition of food literacy                     | <i>I'd said partially in school, but to be very honest it was YouTube.</i>  |
| b) Role of parents                                  | N/A   |
| <b>3. Impact of student life on learned habits</b>  |   |
| a) Eating habits                                    | <i>Definitely a lot more meals ...snack between meals. [Laughter]. Uh, because back, I live with my parents so they are the ones who had control over what I ate, whereas now, I'm the one who control whatever I want to eat. So that's definitely the reason I would say.</i>   |
| b) Dining out/ takeaway                             | <i>I don't have time to cook then that's what I will do. I'm not bothered by it. [I order] 2 or 3 times [per month]. [...]Well, I don't ...eat out. That's something I try not to do.</i>   |
| c) Food choices                                     | N/A   |
| d) Choices of ingredients                           | N/A   |
| e) Cooking  | <i>I got really big time to cook because it's just... it's a lot of money. It's a lot easier to just go buy something but I look at the money I spent, I was like, this is ridiculous. I just meal prep, meal prep it all.</i>  |
| f) Consumption of traditional food                  | <i>Not at all [...] because I don't have the time or the ingredients to cook it to be really honest.</i>  |
| g) Acquisition of traditional ingredients           | <i>I know some [stores], but they are not accessible. They are like too far.</i>  |
| <b>4. Informed substitution</b>                     |   |
|   | <i>The thing is that I lived in residence for 3 years. I just started living alone, so for me to get to a stage to experiment, I already go back home and eat it already, so I don't really have the time to miss it. And I'm like, no, I haven't tried. [...] But honestly, I really wouldn't because it's not the same. I would ask them what is healthy so that I can start buying that. [Laughter] because I don't have another alternative. [...]I don't think I would substitute. I don't have that much anyway, so for me it's like if I have it let say two times a year, I'd cut down to once.</i> |

Table 2.2.

*Questionnaire for Amina*

|  | Yes | Somewhat | Neutral | Very little | No |
|--|-----|----------|---------|-------------|----|
| 1. I believe what I hear on the media about food related illnesses                         |     | X        |         |             |    |
| 2. Friends or media taught me what a good diet is  |     | X        |         |             |    |
| 3. Cameroonian meals are healthy   |     | X        |         |             |    |
| 4. I know what monosodium glutamate is   |     |          |         |             | X  |
| 5. I consider myself healthy by my diet has little to do with it                           |     |          |         |             | X  |
| 6. There are a lot of opportunity to make healthy food choices in supermarkets in Montreal | X   |          |         |             |    |
| 7. The most important is taste!  | X   |          |         |             |    |
| 8. When I am hungry, I just grab what is available, healthy or not!                        |     |          |         | X           |    |
| 9. I read labels before I buy cans and other processed food                                |     |          |         |             | X  |
| 10. I learn about food every day   |     | X        |         |             |    |
| 11. I started to cook at a very young age  |     |          |         | X           |    |
| 12. Food literacy should be taught in primary and secondary schools                        | X   |          |         |             |    |
| 13. My mother was the one cooking at home  | X   |          |         |             |    |
| 14. I do not like to think much about what is in the food I buy                            |     |          | X       |             |    |

### **Amina's Story**

(Age 21; single with no children; grew up with both parents; BA in Translation Studies in progress, emigrated from Cameroon in 2003 and immigrated to Canada in 2014)

A classmate at Concordia University introduced me to Amina two years ago in the bus going from Loyola to Sir Georges Williams campus. I lost touch with her since then. At the time, I was surprised to meet my first fellow Cameroonian in Montreal. When the opportunity to carry this research came, I thought she would be a perfect candidate. She had had almost the same life path as I because after we both left Cameroon as young children, we travelled a bit before we immigrated to Canada as international students. Amina is a single 21 years old woman from North West Cameroon. She left the country in 2003, travelled (Haiti, Mali, Angola, Chad, Mozambique, Madagascar) and finally arrived in Canada in 2014 under a student visa to study translation. She used to live on campus and only go back to Cameroon on occasions. I like to refer to the likes of us as *constant travelers* because since we were young, we have been moving around from one continent to the other. It should be noted that she has no children. As I enter the room in which we will have our interview, she offers me to sit and make myself comfortable. It is early afternoon. The room is small and quiet even though it is near the Hall Building on Sir George William Campus.

### **Food Literacy**

Amina makes a slight pause before she mentions the importance of eating healthy food. She considers that a healthy diet consists of a balance in terms of the different quality meals such as meat, vegetables, carbohydrates such as rice and pasta. She ultimately adds that having enough meals throughout the day and in good portion is also uttermost in determining a good diet. Amina describes her diet as being balanced because she eats stir fried vegetables with meat (mostly chicken) and sweet potato or rice. Taste is also an important factor in her choice of food. However, rice, chicken and lentils

are her most consumed items because they are also her favorite meals. It is determined that her diet is mostly composed of vegetables, meat (i.e., mostly chicken) and an accompaniment (e.g., rice, potato, etc.) that she cooks herself. Whenever she is in a store to buy food and has to read labels, she understands most, but definitely not all of them. she understand most of what she reads, but she does not read labels before she buys cans and other processed food. For example, on the questionnaire, she indicates that she does not know what monosodium glutamate is. As a result, she is wary of items that lack certain ingredients that would be useful for the customer, ingredients such as preservatives. She is very mindful of the places she buys her ingredients. For example, whenever she buys chicken, she prefers to go to small businesses because she would be able to see who touches her food whereas in big stores, the meat comes in wrapped packages and she does not see the third parties who tempers with her meat. She considers that there are a lot of opportunities to make healthy food choices in supermarkets in Montreal. On her knowledge about cooking ingredients and to the question of the extent of her knowledge about food safety she seemed to know enough to question her choices. When asked about food traceability, meaning her ability to identify the origin of the food she buys, she reports that most of the time, she has no idea, but she knows for sure that fruits and vegetables sold in Montreal are not local. She would be unable to say where there are from. On the other hand, in Cameroon, she did not eat grocery store food because she went to the market. She believes that farmers who sell their produces in Cameroon grow their produces themselves and are not part of a big industry. As such, it is possible to trace the origin of seeds for example and trace their source. Some seeds were local and others may come from neighboring countries. In terms of possible health associated issues she may know about Cameroonian dishes, she is adamant that the dishes are unhealthy. There is too much oil and red meat in them. On the other hand, she recognizes that the raw ingredients are organic and healthy. However, once they are put together into a dish, they are so altered that they are not the

same anymore.

### **Learning Experience**

Amina believes that she acquired food literacy partly in school, but mainly through social networks such as YouTube. She did not mention parents' involvement in learning about food. She believes the information she hears on media outlets and trusts that she is engaged in constant learning since she hears about food every day.

### **Impact of Student Life on Learned Habits**

In terms of eating habits, I ask her if she noticed any changes since she moved to Montreal and Amina laughs and hesitantly says that when she used to live with her parents, they controlled what she ate whereas now that she has moved to Montreal alone to study, she eats whatever she wants. She associates the absence of parental guidance with snacking. Even though she tries to avoid eating out, she recognizes that sometimes, (2 to 3 times a month) she would do it if she does not have time to cook because it is a good time saving alternative and a lot easier to just buy something. But, she considers that cooking saves her money because whenever she buys ready meals, she spends a lot of money. As a result, she buys her ingredients and prepares her own meals. Although in Cameroon she ate traditional meals three to four days a week, in Montreal, she does not have the time nor the ingredients to cook them. Even if she could cook them, the stores that sell the ingredients are too far from where she lives.

### **Informed Substitution**

Amina lived in residence for three years and just started to live alone. As a result, she never tried and does not feel the need to experiment with substitution of ingredients. Besides, she states that she goes back home to eat traditional dishes and does not have time to miss them. However, she thinks that if she was given no alternative, she would find out healthy ingredient to substitute for the one she is missing, but she considers that substitution changes the nature of the food. Her solution to

substitution of an item that turns out to be unhealthy is to reduce the amount of the said item because she does not consume much traditional dishes in Montreal.

Overall, Amina considers that diet is related to health and that food literacy should be taught in primary and secondary schools.

Table 3.1.

*Data from Marine*

| <b>1. Food literacy</b>                              |   |
|--|---|
| a) Healthy diet<br>(Questions 7, 8, 20)              | <p><i>I think a good diet is really for me whenever I think about a good diet, I think about vegetable and I think about fruit. And I think about no junk food and no like chocolate, no chip. I mean when I say no, I mean a good diet I realize I should say everything in moderation. So I mean obviously you would focus more like eating more fruits and vegetable. If you want like a piece of chocolate, yes have it but everything has to be done in moderation. I think that's for me a good diet</i></p> <p><i>[...] There is nothing wrong with eating fried food, like something that has been fried once in a while. Again, I would say everything in moderation, but when you look at a table and most of the food has been fried. It's greasy. It's kind of disgusting. For me healthy it's fruits and vegetable, not too many fried stuff, not too much grease.</i></p> <p><i>[...] without altering it much. For me when I cook, I try not to fry my food. I try to bake, use the oven a lot. If I do fish, I try to put it in the oven. If I do like chicken even though now, I'm trying not to stop eating meat, whenever I used to meat I would try to put it in the oven, just not fry. I'm not a huge fan of frying stuff. I'm not a huge fan of putting bread crumbs on stuff and frying that. Obviously, I try to eat a lot of fruits and don't eat as many vegetables as I should. I think that being vegan would be like that's healthy for me. If you want to eat something, you don't alter it.</i></p> |
| b) Food and nutritional labels<br>(Questions 12, 13) | <p><i>I never read the labels until a couple of years ago my mom said you really need to. Whatsapp came out and then now you always get like message about reading ingredients, labels and I'm trying to read them more but I don't understand anything because there is a lot of scientific terms that are being used.</i></p> <p><i>Like the first ingredients usually are things that you can understand but anything else after is like...and something they even put numbers like E-40 or something like that that I have no idea what it means.</i></p> <p><i>[...]It would depend on what product it is. Like I this is not an African food, but let see if I want to buy my oatmeal. I eat a lot of oatmeal in the morning. But now that I buy it all the time, I don't read it, but when I first started buying it I bought it because I hear that it reduces cholesterol and I thought a lot about it, so I believe and I trust it.</i></p>   |
| c) Food safety<br>(Question 14 c)                    | <p><i>I really know how to conserve my food, but do I always do it? Sometimes I'm too lazy. For example if you buy a lot of vegetables, sometimes you</i></p>   |

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|  | <p><i>cut them and put them in the freezer because you are not going to eat them all at once, so they don't go bad, but sometimes you are just too lazy to do it. But I know how to do it is just actually doing it.</i></p> <p><i>[...]Yellow red, I have green [hot peppers=piment]. Literally you would cut them in pieces. You would add water and also the cube Maggie that I told you before I put in everything and whatever other spices you want to add and you put it in your blender and you blend really really well. And you also have to add oil because you want it to last for a long time. You make it in a big quantity and you want to preserve it really well</i></p> <p><i>[...] in the fridge.</i></p>   |
| <p>d) Traceability<br/>(Question 14 a, 14b)</p>    | <p><i>I fell like a lot of time you buy food it is like how we say in French: "à tes risques et perils". You don't really know where your food comes from. like even sometime when I go to Jean Talon, the market, they want you to believe that those are the farmers who grew the food but they just took the food from somewhere else and put a little dirt on it and say they came from over there. And they increase the prices. So I don't really think I know where they come from unless it comes from my garden and I grew it myself. Before, my sister used to grow tomato. It was so weird. Then I would trust her because I saw her grew the food herself.</i></p> <p><i>I don't think these taste better I just fell like knowing that they were actually natural, there were no pesticides or anything put on it to make it grow I enjoyed it more but I wouldn't say that it tasted better because I fell like a lot of food that you find in the supermarket are made to taste really good because they add stuff.</i></p>   |
| <p>e) Characteristic of<br/>Cameroonian dishes</p> | <p><i>Yes traditional food, my mom and my dad like were born and grew up there [in Cameroon], so I have always eaten.</i></p> <p><i>Poulet DG, I would qualify it as healthy because I guess, it's chicken and vegetable I mean you have your protein and you have your vegetable and obviously it's spicy. If you don't put too much salt then that's fine. Ndonga, would I qualify it as healthy? That's a good question. I clearly never really thought of it. I don't know because I mean again, we said it's not pistachio paste. I guess I would qualify that as healthy. Yes, why not? I mean its chicken and it is eggs. You have a lot of proteins, maybe and maybe the paste may be a little too much but I don't think it would be unhealthy.</i></p> <p><i>[...]A spice that we use a lot that is really famous not only in Cameroon but in all of African. Like if you go to anybody's kitchen, they would have...how do we say in English? I think it's like Maggie Cube, Cube Maggie.</i></p> <p><i>Like everybody has it so there is nobody who can put and don't put it in there. Because like, Even when I cook and I don't put it in there, I feel like something is... I would never not put it in there but like it is like I feel if I was to cook and not put it in there I couldn't eat that dish. It's part of like the African culture. You know like in the United States they have like Coca-Cola like the brand, we have cube Maggie. That's our brand.</i></p> <p><i>[...]There is funny stuff as well, so we have the cube magi when we cook we put the spice in the food, but at the same time, we also have Maggi which is actually the liquid that you put on the table. Whenever my mom would cook or even now, whenever I cook, I never taste the food, I just put the spice like the Maggi liquid on it and I just eat it.</i></p> <p><i>[...]I feel like as African, having food that having food that is spicy, not</i></p> |

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|   | <i>too spicy but has flavor is extremely important. So my kitchen cabinet, I have so many spices, obviously I have the basic like salt, pepper and garlic powder but I need to have everything else I need to have a lot of mix like Cajun even if it is not a specifically African dish but like spice, I have like Cajun seasoning, Indian seasoning, I just need to have a lot different spices curry paprika everything else just to make my food taste good.</i>   |
| f) Health associated issues with<br>Cameroonian dishes<br>(Question 28) | <i>I just think that we eat much healthier in Cameroon. Like even though I left when I was a kid, whatever I go to African, let's say Cameroonian relatives' house and I see the food that they have, I just feel like there is a lot of healthy food. We eat a lot of leaves, a lot of vegetable in a lot of our dishes and like meat, where you have your proteins, you have your carbs, but of course there is food that is fat, but it's not like, I don't know because I lived in the United States and sometimes, I see what people, especially down South which is like really close to like what black people eat. There is a lot of like fried this, fried that. There is a lot of unhealthy food. Whenever my cousin invited me to their house and eat some of the food that they have, I have seen a lot of fried stuff, a lot of grease. I think that African food is not as greasy, it's super healthy.</i>  |
| <b>2. Learning experience</b>   |   |
| a) Acquisition of food literacy<br>(Question 9)                         | <i>I think probably I would say my mom. She was the one always in the kitchen. And whenever I would come home from school I would always want to eat like a piece of bread with Nutella and she would be like "no have a fruit", like I said before. When I was like ..., I guess she kind of taught me that you know like this is what you should be eating.<br/>[...] I heard it [that oatmeal reduces cholesterol] on TV. [laughter] the ad said that it reduced cholesterol. I feel like...I don't know where else I heard it. I think that everybody knows that oatmeal can reduce cholesterol and is really good for the digestive system.<br/>Again, my siblings are just weird. They like to watch a lot of documentary and my mom too so I just sit there and watch with them whenever they visit. There was a documentary; I think it is Food Inc. I don't really remember the name.<br/>One of them, on Netflix, but then there are so many of them that talk about the food industry and everything they do behind without telling you. Even for the alcohol, how they make alcohol looks red. And there is this thing that they were saying that there is no such thing as perfect food. You shouldn't buy your food with no imperfection on it because it doesn't really exist. When it is too beautiful that means that it was man-made.</i> |
| b) Role of parents in<br>acquisition of food literacy                   | <i>[...]So, not in Cameroon [learning about healthy food choices] because in Cameroon as I said, I left when I was 6 or 7, but I don't... I don't really remember that much about eating food in Cameroon. Even though I ate Cameroonian food all my life obviously. But in ...when I was in France that's when I learnt about like healthy about eating well, and obviously like I said from my mom. And in the United States, definitely not.<br/>[...] So yes basically during lunch for example during the week, my dad worked. My mom, whatever... I think my mom was at that time when we were in France she went back to school but she was always back at night</i>   |



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|   | <p><i>and even when she worked during the day she was always home at night so, and then my brother, my other siblings, I think we all went to the same school at that time and some of them were maybe in college but whenever we will come home at night we would like all do our homework and then my mom would be like “diner is ready” and then we would all sit at the table and all eat together. And we wouldn’t leave the table until like I guess my dad is done eating.</i></p> <p><i>[...]I think it’s just like an African thing. I guess I would say African thing where for me it’s just like the dad would sit at the table and my dad would be the first one to serve himself. We would be like here is the food and he would be like “no you guys go”. But we used to propose to him to go first. And then like we would start eating unless my dad was at the table. So unless he was like “start eating without me”. But usually we all eat together and it wasn’t only my dad. Everybody had to be there and then we could start eating.</i></p> <p><i>[...] my dad would do a couple of stuff, but mostly my mom.</i></p> <p><i>[...]Yes, and then my mom brought that idea maybe you should eat oatmeal. And then one of my brothers is also a health fanatic so he told me too.</i></p>  |
| <p><b>3. Impact of student life on learned habits</b></p> |   |
| <p>a) Eating habits<br/>(Questions 6, 19)</p>             | <p><i>Since I have been in Montreal I feel like coming from the United States, I have been eating healthier. I have been like... the choice of food, what I reach out to eat, uh you know, when I go shopping is more uh, more health conscious. I’m still eating junk food obviously. [Laughter] but I think that in this country at least in Montreal, I think that the food is a little more healthy at least what you have available to you.</i></p> <p><i>[...]I had a better uh I had a better eating habit when I was in France, only because when I was in France I was still with my parents, I was still younger and uh, I feel like at that time, I was in school, I guess I was in high school and you know, I was a struggling student. I didn’t really had money to buy a lot of bad food, so it’s either my parents give me money. When they did give me money, I would rather use the money to buy me clothes. It wasn’t really for food, So I would just have whatever, for breakfast, I would eat whatever I had at the house. My parents had like oatmeal or cereals, maybe bread and then in school, I would either bring food from home or maybe buy whatever was at school. But I felt like in France, the food that we ate for lunch was healthier. And then for diner, like...for like obviously after lunch, you can have something else somewhere like 4 o’clock. Uh, I would go home and I would be like “mom I’m hungry” and she would be like “here is an apple”, you know. So I would eat like good food and then at diner I would eat whatever my mom cooked. So I feel like I ate healthy, I didn’t really have the time to snack or I didn’t have the money to snack, I guess.</i></p> |
| <p>b) Dining out/ takeaway<br/>(Questions 15-18)</p>      | <p><i>When I moved to the U.S, it changed. Because another thing, when I was in France, I would ... we would never eat out. I don’t know if it was because my parents are from an African background where it is like oh you have to eat at home every day and at the dinner table together like it’s a home cooked meal. Whenever we would eat out maybe like once every, like 4 months, it would be like to go to Pizza Hut and we were all so excited. We would never eat out. But when I got to the United States, I</i></p>  |

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|                             | <p><i>just like giving up. It wasn't even like... It was something that was foreign. I would just eat out all the time. I would just have breakfast outside. I would get lunch outside, dinner outside. So I think that's another thing that contributed to my, like bad eating.</i></p> <p><i>[...]I think "a tes risques et périls" ...you know what, we live in a society as I said before when I was growing up, like going out and eating...I wouldn't say going out makes it seem like such a big event. By just buying something outside that was not cooked in the house was kind of a big deal. But I think now we live in a time where just going out and not cooking at home is like the norm. When somebody cooks at home it's just like, oh my god, you brought your lunch. You cooked. It's just weird. I think it is fine. I just wish to reduce my consumption of take out because whenever I cook and eat food that I actually cook, I feel better.</i></p> <p><i>[...]When I'm on diet I don't really order. I maybe order once a month or something like that, but it has to be kind of healthy like sushi that does not have too many calories or like Indian food is good because they have like sauce that you eat that don't really have a lot of calories.</i></p> <p><i>[...]I think it's the convenience. When you are coming home from school after an entire day of sitting down and taking notes or when you are coming from work, it's easy to just pick up the phone or go online and place an order and have somebody deliver your food. You eat it. You don't have to do dishes. You throw everything out and that's it.</i></p> |
| c) Food choices             | <p><i>I just feel like when I was living in D.C in the United States, whenever I would go, there was a lot of...it was easy I guess to make bad choices when it came to eat, especially when I go to the supermarket, they always had a lot of promotion that uh... force you to... not force you, but they had those promotions where it's like okay buy 2 get 2 free of something that is really bad you shouldn't eat for example like a jar of Nutella which obviously is not healthy, but when you have such a promotion, you are more ready to go and buy it, not saying there are no promotion here in Montreal, but I feel like it's not really... they are not really pushing you to eat bad. Uh and then uh I don't know. I discovered Jean Talon Market where there is a lot of like... where you can go actually meet the farmers. You can buy a lot of fruits and vegetables which I'm sure we also had in D.C but I think like Montreal is so much smaller and there is more like a community vibe so for me when it comes to food it's a little bit healthier here, I guess.</i></p> <p><i>[...]I consume, something that I would never stop, I consume rice. I don't eat pasta as much but rice is something that has been always part of. I cannot cut rice. I just need rice, all the time.</i></p>   |
| d) Choices of ingredients   | N/A   |
| e) Cooking<br>(Question 21) | <p><i>[...]I try to meal prep for the week or at least have a list because when I go shopping I don't just go shopping to buy a couple of stuff. I literally have recipes of what I'm going to cook next week or the following two weeks and I just buy what I need for my recipe. So I meant in this sense I do meal prep, but not everybody has time to do so I think that's why they are surprised.</i></p> <p><i>[...]I don't know because it is like I think not saying that my coworkers don't, where I work, because I also work part time outside of school, not saying that they don't bring their food. A lot of people bring their food. It's just that it's time consuming to cook. Not everybody has that time</i></p>   |

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|   | <p><i>and a lot of people have other things that they need to do. Not everybody has time on Sunday to do the meal prep for the entire week.</i></p> <p><i>[...] it's just me or sometimes, I just go to my relatives' house and eat whatever they cooked</i></p> <p><i>[...] I usually eat at home. How many times a week? I mean almost every day.</i></p>  |
| <p>f) Consumption of traditional food<br/>(Questions 22,23)</p> | <p><i>My mom is not here with me. But she comes and she visits. When she visits, I always ask her...like I have a list of everything I want her to cook for me. Because there are not that many Cameroon restaurant around here. It is a lot of like Congolese or like Senegalese, but even like in general, I feel like there is never enough...there is never a lot like Cameroonian...I never eat in a Cameroonian restaurant. I always eat Senegalese food or whatever outside at least.</i></p> <p><i>[...] I don't think there is a dish that she cooks the most, but let me think. She just cooks so many. Just because I think that when she comes, she visits for a short period of time. She really cooks a lot of different thing, I don't think there is just like one particular thing that she does the most. I guess if she was staying here for a year, I'm sure there would be one thing that she cooks all the time. And when she is here as I said before I always have a list of things I want her to cook for me.</i></p> <p><i>[...]Because I always have to ask for my...to wait for my mom to come here to eat some traditional food [about not consuming traditional food].</i></p> <p><i>There are a couple of dishes that I would call my mom and she would talk me through it but I think it is like the vanilla, the plain stuff. It's not like the complicated stuff. You know, There is like something that we eat that I would try to buy at the supermarket.</i></p> <p><i>for example, you have the Ndonga which is like pistachio and then a paste I guess and then inside they put like sometimes eggs, meat... I don't know how to describe but it is like a really complicated dish. I feel like I could not make it myself.</i></p> <p><i>and then we have a like traditional Cameroonian dish called poulet DG. It is really vanilla, it's like chicken and vegetable. You could do that... like I could do that, you know.</i></p> <p><i>Poulet DG is basically...DG stands for directeur general which is like general director. If I remember the story it's for people who work in construction sites or whatever. That's what they give to workers to eat. It is like very easy to make. It's like literally chicken with some like vegetables and you eat that with plantain which is like sweet banana. It's really like it sound really easy to make but you have to get the taste right. Because like chicken and vegetable, everybody can do that but there is a taste that is really like specific.</i></p> <p><i>[...]I think every African house has it, palm oil. I use olive oil and then if I do have to fry stuff like plantain which I try to boil usually, I would use canola oil for the frying.</i></p> |
| <p>g) Acquisition of traditional ingredients</p>                | <p><i>Dishes that I cook are the easy ones. There are not really the hard ones, but if I want the ingredients, I go to the African market in Jean Talon. There have like all those African ingredients that you can use whenever you want to cook African food.</i></p> <p><i>[...] I was going to Jean Talon market for my food and vegetable and then walking pass it, I just saw African market. It was by chance.</i></p>  |

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|   | <i>Nobody told me about it.</i>   |
| <b>4. Informed substitution</b><br>(Questions 26, 27, 29) | <p><i>I would use like a substitute, something similar to it when it come to at least the taste. I just always look for a substitution</i></p> <p><i>[...] For example, one of the traditional dishes we have is called Ndolet. I don't think you can translate that in English.</i></p> <p><i>[...] Whenever you think about Cameroon it is always Ndolet, it's the first traditional dish. So for that one for example, it is not an easy dish to make so whenever I want to make it, again, I would have to call my mom, so she could tell me how to do it. It is basically a dish we make with leaves. Is it pistachio? No, it is leaves and...leaves from Cameroon. What else do I put in there? I haven't cooked that in a long time. It's leaves form Cameroon, but obviously you don't find leaves from Cameroon in IGA, other supermarket don't have them either.</i></p> <p><i>[...]I didn't know what to do when I couldn't find it, so again I called my mom and she told me I could just use spinach and I substitute those leaves with spinach. It's okay. It's not the same thing but it's not bad.</i></p> <p><i>[...]There is this dish that I want to cook and I need that specific ingredient. If I can't find it then I substitute it for something else. I don't really think about the health factor obviously. It never really crossed my mind. Usually when I buy stuff, I think about the health factor. Because I guess when I substitute one thing for another, I'm just thinking that is it the same, it is as healthy.</i></p> <p><i>[...]I probably wouldn't use them anymore [food and their substitutes]. I wouldn't. If it's unhealthy and there is something wrong with it. That would be detrimental to my health, I wouldn't use it because you health is super important because once you lose it is so hard to get it back. I would probably look for another substitute.</i></p> <p><i>[...]I think the taste [of unhealthy substitutes]. If it is like really super good. I feel like I should change it, but if I'm not changing it is because it's super good. I think that there is so many things that we eat on the very basis that we just know these, is not good for us, but we still eat these food items.</i></p> |

Table 3.2.

*Questionnaire for Marine*

|  | Yes | Somewhat | Neutral | Very little | No |
|--|-----|----------|---------|-------------|----|
| 1. I believe what I hear on the media about food related illnesses |     | X        |         |             |    |
| 2. Friends or media taught me what a good diet is                  |     | X        |         |             |    |
| 3. Cameroonian meals are healthy                                   |     | X        |         |             |    |
| 4. I know what monosodium  |     |          |         |             | X  |

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| glutamate is   |   |   |  |   |   |
| 5. I consider myself healthy by my diet has little to do with it                           |   |   |  |   | X |
| 6. There are a lot of opportunity to make healthy food choices in supermarkets in Montreal | X |   |  |   |   |
| 7. The most important is taste!  |   |   |  |   | X |
| 8. When I am hungry, I just grab what is available, healthy or not!                        |   | X |  |   |   |
| 9. I read labels before I buy cans and other processed food                                | X |   |  |   |   |
| 10. I learn about food every day   |   |   |  | X |   |
| 11. I started to cook at a very young age  |   |   |  |   | X |
| 12. Food literacy should be taught in primary and secondary schools                        | X |   |  |   |   |
| 13. My mother was the one cooking at home  | X |   |  |   |   |
| 14. I do not like to think much about what is in the food I buy                            |   | X |  |   |   |

### Marine's Story

(Age 31; single with no children; grew up with both parents; MA in Corporate Communication, emigrated from Cameroon in 1993 and immigrated to Montreal in 2016)

Marine is a single student in her early thirties from the same region as me, Ngaoundéré (North East Cameroon). She left the country to go to France when she was very young (7 years old) and never returned. She then lived in Washington D.C two years after she left Cameroon and arrived in Montreal in 2016 under a student visa to study corporate communication. She is a commuter, living and attending school in downtown Montreal.

I met Marine on February 2017 during the celebration of the fiftieth anniversary of Cameroonian community life in Canada organized by the Associations of Cameroonians in Canada in which I was invited. I explained my project to her and asked if she was willing to participate. She seemed interested, so she left me her contact information to contact her as soon as I had had authorization from the University's Human Research Ethics Committee.

One year later, when I meet her at her home for the interview in the living room of her apartment on a Sunday afternoon. At first, she looked shy but as soon as I started the recorder, it turned out that she has an extraordinary amount of energy. She is very eager to have this interview and is very talkative. I sit on the couch and she sits on an armchair facing me.

### **Food Literacy**

When Marine thinks about a healthy diet, the first things that come to her mind are fruits and vegetables. Even though she considers junk food such as chocolate and chips acceptable, it should be consumed in moderation. Food that is fatty or that has been fried is adequate when consumed in small quantities. She finds a table that contains mostly fried food to be disgusting. For her, fried food is altered. That is why she uses the oven to bake fish or chicken and is not a huge fan of putting bread crumbs on stuff and frying them.

Whenever she bought food, she never looked at the labels until a couple of years ago when her mother and the messages she receives on Whatsapp advised her to. Now she tries to read labels, but she finds it difficult because of the scientific terms. She usually can understand the first ingredients, but when she reads number codes such as E-40, she does not know the meaning. At the end, it would depend on the product. She started to eat oatmeal in the morning because she heard that it reduced cholesterol. She could not point out where she learnt it because she receives her information from different sources. After reflection, she decided to trust the product. Now that she buys oatmeal all the

time, she does not read the label.

Marine knows how to conserve her food, but does not always do it because she is sometimes lazy. For example, she knows that when she buys vegetables, but cannot consume them all at once, she cut and freezes them, but getting it done is the most difficult. She explained that yellow, red and green hot pepper can be cut into pieces, put in water with *Maggi Cube* and other spices. It should then be blended really well in a blender. Afterward, oil should be added in order to conserve it longer, because whenever it is made, it is in big quantity. The whole preparation should be preserved in the fridge. Marine feels that when she buys food, it is a *à tes risques et perils* situation because she does not really know when her food comes from. For example, when she goes to Jean Talon market, she wants to believe that the sellers are the farmers that grew the food. However, she thinks that the sellers just took the food from somewhere else, put some dirt on it and say that it comes from a specific place. That allows them to increase prices. For that reason, she only trusts food that she grows herself. Marine's sister used to grow tomatoes. She trusted her because she saw her growing the fruit. It does not mean that it tastes better, but because they were natural, had no pesticide or anything put on them to make them grow, she enjoyed them more. She feels like a lot of foods in supermarkets are made to taste really good because stuffs are added.

She has always consumed traditional Cameroonian food because both of her parents are Cameroonian. *Maggi Cube* is a spice that she uses a lot and that is really famous, not only in Cameroon, but in all of Africa. It is a staple of the African kitchen. When she cooks and does not use it, she feels like something is missing and would not eat that dish. It is part of the African culture. She compares it to the use of the Coca-Cola brand in the United States. The *Maggi Cube* is used as a spice when cooking, but at the same time, she also uses *Maggi* sauce which is actually the liquid [bottle] that she puts on the table. Whenever her mother or she cooks, she never tastes the food and just adds the

*Maggi* sauce. She considers that it is extremely important for Africans to have food that is not too spicy and has flavor. Marine has many spices in her kitchen cabinet, obvious spices such as salt, pepper and garlic powder, but she has the need to have other spices such as Cajun or Indian spices even though it is not typically African. She needs to have a lot of different spices such as curry, paprika and everything else to make her food taste good.

She qualifies *Poulet DG*, a dish made with chicken and vegetables to be healthy because there are proteins, vegetables and spices. If there is not much salt, then it is fine. For other dishes such as *Ndonga*, she never really thought about it, but would probably qualify this dish as healthy because it is constituted of pistachio paste, chicken and eggs. There are a lot of proteins and even though the paste may be a little much, she does not think it would be unhealthy. Marine thinks that people eat healthy in Cameroon. Even though she left when she was a kid, she goes to her relatives' house, she feels like there is a lot of healthy food. They have a lot of leaves and vegetables in a lot of their dishes. They also have carbohydrate and meat for proteins. She recognizes that there are food that are fat, but it is not like in the United States, especially down South where the food is really close to what black people eat. Marine thinks that in those places, there is a lot of fried and unhealthy food. Whenever her cousin invited her to eat, some of the food was fried and greasy. African food is not that greasy. It is super healthy.

### **Learning Experience**

Now that she is not living with her parents, Marine mostly learns about food from her brother and from the media. She relies on her mother to cook or teach her how to cook traditional food, but since her mother lives overseas, she only get to eat complicated Cameroonian dishes whenever she visits. She makes an interesting choice of word when she refers to her brother as a health fanatic, meaning that he is active and is vigilant of his diet. For example, she mentions that she learned that



oatmeal can reduce cholesterol on TV and that she cannot think of another place she may have heard it. At the same time, she says that the first persons to mention its health benefits were her mother and brother. She considers that this is a fact everyone knows. When she watches documentaries about food and food industries, it raises her awareness about the food industry and everything they don't tell the customer and do behind closed doors. She is very weary of food that looks too good and stated that there is no such thing as perfect food. Food with no imperfection shouldn't be bought because imperfection doesn't really exist. When it is too beautiful that means that it is man-made.

Marine's mother taught her about good food since she was the only one who used to cook at home.

Her father also used to cook a couple of dishes, but on rare occasions. She does not recall learning about healthy food choices when she was in Cameroon because she was six or seven, but she started to learn from her mother when she was in France. She remembers coming home and asking for bread with *Nutella*. Her mother would refuse and tell her to take a fruit instead. When her family was in France, her father worked and her mother went back to school. She was always home at night even when she worked during the day. Her siblings, some of which were in college, and she went to the same school, but whenever they came home, they would do their homework and then their mother would call "diner is ready". They would all sit at the table and eat together, unless their father told them to start eating without him. Their father was supposed to be the first one to get served, so they would offer him to go, but he would decline and let them start. They would not leave the table until their father was done eating. It is an African thing.

### **Impact of Students Life on Learned Habits**

Since she was in Montreal, Marine feels like she has been eating healthier than when she was in the United States. She became more conscious of her food choice. She recognizes that she still eat junk food, but considers that in Montreal, food is a little healthier in term of food available to her. She had

better eating habits when she was in France, especially because she was young and lived with her parents. Unless her parents give her money, she did not have the time or much money to buy a lot of bad food. She was not a big eater, so whenever she received money from her parents, she would buy clothes. At home, she would eat what she had available at home. For example, her parents served oatmeal, cereals or bread. Then she would bring food from home to school or buy school food. Marine thinks that the food that she ate at lunch was healthier in France. Then after lunch, she used to have something else to eat around 4 pm. So when she came home, she would ask her mother for something to eat and her mother would offer her to eat an apple. For dinner, she would eat food that her mother cooked. Marine figures that all of the above constituted a healthy diet.

When she moved to the United States, her eating habits changed, particularly the habit of dining out and ordering takeaway food. In France, she would never eat out. She thinks that it is mostly due to the fact that her parents have an African background where eating every day at home and at the dinner table in family is crucial. If they dined out, it would be once every 4 months in a Pizza Hut. It was a special event for which they were thrilled. She considers that her move to America has given her a feeling of resignation for food. She did not feel anything wrong about it. She would just eat every meal outside. She considers that it contributed to her bad eating habits. In France, it was not much the idea of going out that felt special; it was rather the idea of eating meals that were not cooked at home. Marine compares it with the present time where going out and not cooking at home has become the norm. She sometimes cooks her meals in advance, but mentioned that it is time consuming and it surprises people at her workplace. She eats out once or twice a week, but the majority of the time, she eats at home, food that she cooks herself or relatives cooked. She associates dining out and takeaway with convenience. It is easy to pick up the phone or go online to place an order to have somebody deliver her food, especially after a long day of sitting down and taking notes at school. After she eats, she does

not have dishes to wash and just throws everything out. Overall, she thinks that dining out is fine, but she wishes to reduce her consumption of takeout because whenever she cooks at home, she feel better about herself. Whenever she is on a diet, she may only order once a month something healthy such as sushis that do not have too many calories or Indian food because the sauces do not have many calories too. Rice is a food item she would never stop consuming because it has always been part of her diet.

She feels like food promotion in Montreal does not encourage the customer to eat badly, whereas in the United States, it was easier to make bad food decision because there were a lot of promotion aimed at making her buy more. She was hesitant to use the word “force” to qualify the action of the advisements on her. For example, some stores would offer a “but one, get one free” promotion and for products such as *Nutella*, she was more likely to get it. She figures that Montreal is much smaller than D.C. and has a community vibe, as such it seems healthier. Even though there were fruits and vegetables in D.C. too, in Montreal, she could actually meet farmers in places such as Jean talon Market.

When she cooks, Marine tends to prepare her meals in advance for the week. So, when she goes shopping, she doesn't just buy a couple of things. She has a list for every recipe of the meals she will cook the following week. It is a time consuming process. Not everybody has time on Sunday to cook for the whole week. That is why she explains the fact that people are surprised to see home-cooked meals.

When her mother visits in Montreal, Marine has a list of dishes she wants her to cook because there are not many Cameroonian restaurants around her neighborhood. She expressed her frustration on the lack of more Cameroonian restaurants in Montreal whereas there are a lot of Congolese or Senegalese. As such, she tends to eat in Senegalese restaurants. When she comes in Montreal, Marine's mother cooks several different Cameroonian dishes because she only stays for a short period of time.

Because she always has to wait for her mother to visit in order to eat traditional Cameroonian food, she does not eat a lot of traditional meals. She can cook a couple of simple dishes, but needs to call her mother for guidance. For example, she mentions *Ndonga* as being one complicated dish of pistachio paste, eggs and meat. I must note that Marine mistook melon seed (*agusi*), a seed used for *Ndonga* with pistachio (*pistacia vera*). She compared it to *poulet DG* which is a very easy dish of chicken, vegetables and plantains. She explains that *DG* stands for *Directeur General*, a term that originated from the construction workers because that was a dish they were given to eat. Marine considers that anybody can do it, but they need to get the specific taste right. To cook, she uses olive oil or canola oil to fry, but she states that every African has palm oil.

On her way to Jean Talon market to buy food, she discovered an African market. Since then, whenever she needs ingredients, she goes to that store because they have a large selection of African ingredients.

### **Informed Substitution**

Marine would look for substitutes to find ingredients that taste the same as the originals. For example, the leaves need to cook *Ndolet* which a famous traditional Cameroonian dish cannot be found in supermarkets in Canada. At first, she did not know what to do when she did not find them, but her mother told her to use spinach as a substitute. Marine thinks that it is not the same, but it is not bad either. Even though she checks health factors when she buys ingredients, whenever she makes substitution, Marine does not consider health factors associated with the substituted ingredient. She figures that a substitution will have the same healthy characteristics as the original. If an ingredient and its substitutes were both unhealthy, she figures that she would not use them anymore, except if the taste is really good because there are so many things that are not healthy, but still people eat them. However, she is aware that bad eating habits are detrimental to her health because once she loses her health; it is

hard to get it back. Her solution would be to look for another substitute to the substitute.

Table 4.1.

*Data from Djenabou*

| 1. Food literacy                                     |  |
|--|--|
| a) Healthy diet<br>(Questions 7, 8, 20)              | <p><i>A good diet? A good diet would be something that would have, you know, a mixture of carbohydrates, fruits, vegetables, all the oils or the minerals you need for a day. That would be just a mixture of that and with good portion.</i></p> <p><i>[...] healthy food seriously is... it depends really on the definition of healthy.</i></p> <p><i>[...] Well, for me healthy would be first of all good portions. Because it's not because I eat an ice cream that it is bad necessarily but it is how much of the ice cream that I eat. So healthy would be anything that is not unhealthy.</i></p> <p><i>[...] I wouldn't say it's unhealthy [talking about koki] because let me give an example. My grandma used to cook it and she would put vegetables in it. She would put some fish in it. From what I know, palm oil itself is not unhealthy. It's only about portion and all of that, so... in itself, I wouldn't say it's unhealthy.</i></p> <p><i>[...] Unhealthy would be anything that is not good for consumption really. Like... let me think about it before I go ahead. Like, I could say, maybe oversized portions. That would be unhealthy, because it's not because I'm eating carrots that I should eat a lot, you know... I don't know, a bunch, a whole bag of carrots as well, a thousand carrots.</i></p> <p><i>[...] I would take that for basic knowledge that even if mom gives me food or if I'm going to eat some way, I'm not going to eat an oversized portion. For me, it was just common sense.</i></p> |
| b) Food and nutritional labels<br>(Questions 12, 13) | <p><i>Yes, I'm like, okay. I'm not there to do the math this, that or that. Seriously, I don't do it, so I'm like okay, let's say it's a can of corn or beans, so I know it's beans. I read beans, white beans. So whatever is in there, lipids or water or whatever, I really...</i></p> <p><i>[...] Because I presume that before it goes to the market, there is some level of sanitary or whatever that is required.</i></p> <p><i>[...] Except that... if you have seen something that... watch out for this and in that case, I would try to see what is there.</i></p> <p><i>[...] like the famous rice whatever that like okay, I will stay away from that one then.</i></p> <p><i>[...] Somebody actually offered me two bags of the rice months later. I was like "okay" and it is still being sold in the supermarket, so...</i></p> <p><i>[...] I'll pass. I'm not going to eat that because you know, when you have knowledge of something, even if it is safe already, you are like: "I don't know about this".</i></p> <p><i>[...] Well, let's just put it at 6 (out of 0 knowledge of food labels)</i></p>   |
| c) Food safety<br>(Question 14 a)                    | N/A  |
| d) Traceability<br>(Question 14 b)                   | N/A  |

|   |   |
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| e) Characteristic of Cameroonian dishes                           | <p><i>It's heavy. Maybe I should give a better example for you to see what I'm saying. Say like my traditional meal, we have what we call eru. It's some kind of vegetable and then, you eat it with what we call fufu which is like...</i></p> <p><i>[...]yes, you need the bed.</i></p>   |
| f) Health associated issues with Cameroonian dishes (Question 28) | <p><i>I think it would depend on every region. Where you are from. If I give an example of one of my traditional meal, it's actually vegetables and carbs with a mixture of, you know, the proteins and all in the... du poisson, de la viande dans les legumes, tout ca la. Et puis, les carbs, le fufu ou ca va être du poisson avec du plantain, tu vois un peu?</i></p> <p><i>[...]I might be wrong, but I could say if I want to take into consideration my knowledge. Vegetable are not supposed to be overcooked, because if you overcook them, you lose everything.</i></p> <p><i>[...]we are just eating the goo. Really, the nutrients, maybe because of the overcooking are all gone. It's dead.</i></p> <p><i>[...]so we don't like measure "what temperature am I cooking this?" We just cook and when it's done, it's done.</i></p>   |
| <b>2. Learning experience</b>                                     |   |
| a) Acquisition of food literacy (Question 9)                      | <p><i>Well, over the years, you watch, you read, you... you know. You research.</i></p> <p><i>[...]Documentaries or information on the internet or a friend who is like "okay, I learnt this, you know".</i></p>  |
| b) Role of parents in acquisition of food literacy                | N/A   |
| <b>3. Impact of student life on learned habits</b>                |   |
| a) Eating habits (Questions 6, 19)                                | <p><i>I would say yes, because while in France, my husband wasn't there and he had been in Cameroon all this while, you know, so when he came... I could only cook what he knows first and then...</i></p> <p><i>[...] Boiled plantains, fried plantains, I could eat any of them. There are good.</i></p> <p><i>[...] What kind of food I eat the most. Vegetables. That's what I can eat the most.</i></p> <p><i>[...]Okay, my two favorites. If I'm going for something I'm doing not cooked, I like beet roots. I like carrots. I like broccoli and cucumbers.</i></p> <p><i>[...]If I'm doing raw, that means I'm doing a salad or I'm doing it steamed, like stir fry.</i></p> <p><i>[...]if I want to do a salad. Okay, I'm having this mixed vegetable with slices of chicken or slices of... how do we call that in English? Les côtelettes de porc or a steak and I'm good. At times, I could take some bread. Most often, if I can let go of the bread, I would.</i></p> <p><i>[...]In a week, let's say out of 7, maybe 5. When you say meat, are you talking about beef or chicken?</i></p> <p><i>[...]Okay, yes, like five.</i></p> |
| b) Dining out/ takeaway (Questions 15-18)                         | <p><i>Take away, I think they are okay depending on, you know... what they are putting in it, sometimes they only keep the temperature or whatever until I get home and heat it up and things like that.</i></p> <p><i>[...]Because let's say whatever restaurant I go to eat and they are doing take out, they obviously must have something to put in that would permit me to bring it.</i></p>   |

|   |   |
|---|---|
|   | <p>[...] Very little [consumption of takeout]. Once. Let's take once [a month].</p> <p>[...] I always eat at home. I can do one off like, I want Subway sandwich or I want... yes, Subway. I like Subway sandwich. Or I can take salad from McDonald or when I want to be crazy, I can take their burger.</p>   |
| c) Food choices   | [...] I know more now than I did back then  |
| d) Choices of ingredients                                 | <p>Let me tell you, there is different kind of fufu depending on the tribe you are from. Some people do their fufu with ground cassava, some people do it with ground corn.</p> <p>[...] Or ground plantain or ground rice, so all of that is fufu.</p>   |
| e) Cooking<br>(Question 21)                               | <p>I did not personally cook anything all those years [in France].</p> <p>[...] I do the cooking. My husband can cook when there is something he has to do, but I do the cooking.</p>   |
| f) Consumption of traditional food<br>(Questions 22,23)   | <p>One off [eating traditional food]. It was mostly French [food] because my mother in law is married to a French man and he is the one who did the cooking most often.</p> <p>[...] I do [consume traditional food], but like I said, it's once in a week</p> <p>[...] It's not something that I... you know what I'm saying. I do it because my husband likes it, but if it's me personally, I wouldn't do it.</p> <p>[...] Since it is something that is nice, we like it, I do that. I personally wouldn't cook it because I want to eat it. I don't really give... I'm not really particular about it, but I know my husband likes it, so what I do is weekends, maybe Saturdays or Sundays.</p>   |
| g) Acquisition of traditional ingredients                 | <p>Friends would come from back home, bring some or if what I have at home is finished, then I go to the Indian shop or the Cameroonian shops that are around my neighborhood and do a refill. And even the Maxi could have some.</p> <p>[...] No [difficulty finding traditional ingredients].</p>   |
| <b>4. Informed substitution</b><br>(Questions 26, 27, 29) | <p>We have this, what we call fufu that we use to eat our traditional meal. At times, you do it with either grounded cassava which is called gari. Something I discover I can use that if I don't have that.</p> <p>[...] It's the carbs that you eat with the vegetables.</p> <p>[...] Oui, c'est soi la poudre de manioc. Oui, je peux dire ca comme ca.</p> <p>[...] Exactement, mais ca c'est plutôt le manioc, disons, grossier.</p> <p>[...] Yes, there is this vegetable that we cook back home, but here, we don't have what I use to cook that particular vegetable. I use spinach.</p> <p>[...] back home, we call it water leaves. I don't know how...</p> <p>[...] It's just like the épinards but it's gluant. It's slippery. The spinach does not have that hooey gooey slippery. Water leaves does.</p> <p>[...] A friend told me that they used to grow spinach in Cameroon that they had spinach in Cameroon and I was like "seriously?" and he said yes, that the mother used to cook it. So personally, I don't know if the nutritive values are different. I don't know.</p> <p>[...] And I have never like, okay... Nutritive values of waterleaves or what the real name is to what I use here, the spinach.</p> <p>[...] Well, I will look for the healthier option [if finding out substitution is unhealthy] because as you say, you are what you eat.</p> <p>[...] I'd give an example. It is said that eating a burger is unhealthy, but nobody has really died from eating a burger. So, seriously, one off is not going to kill me so I might as well eat today or I might choose to do mine</p> |

|  |   |
|--|---|
|  | <i>at home. If they say maybe that's a commercial one that is not good, I might say, okay, I'll buy my beef and then do it at home.</i> |
|--|---|

### **Djenabou's Story**

(Age 37; Married with 3 children; Diploma in Law, MA in Business Law, Professional studies in health care and Diploma in Career Advising, emigrated from Cameroon in 2007 and immigrated to Montreal in 2014)

I also met Djenabou in February 2017 during the event organized by the Associations of Cameroonians in Canada. She showed interest in the research project and gave me her contact information to call her when the research started. For the interview, I met her in her home in Laval. She is a married mother of four in her late thirties. She left Cameroon in 2007 and arrived in Canada in 2014 after applying for a program. She is pursuing a degree in Career Advising, but already obtained a Bachelor in Law and a Master in Business. She is originally from Boya (South West Cameroon), but has been back since she arrived in Canada. Djenabou is also a constant traveler because she travelled overseas and lived in England and France since her young adult life. Her childhood was different from the previous two participants who left Cameroon when they were children. Djenabou left when she was an adult, after she received a university degree.

We met on a Friday. I remember well because the trip to her home was long and I was cold as I waited patiently for the bus with the other commuters. Djenabou is the type of person with whom you can carry an interesting conversation even though you never met her before. She is very convivial and welcoming. As I arrived, she greeted me warmly and offered me a drink. As I put down my bags, her children greeted me as well and called me "auntie." I'm familiar with this endearment only because I used it to call adult acquaintances when I was their age. I am certainly not used to being called "auntie" myself. In sub-Saharan Africa, adult family friends are called "auntie" by younger children as a form of respect. It reinforces the sense of community and being a large family. It made me feel comfortable



right away. Djenabou and I sit at the dining table in the kitchen. Children are watching TV in the next room, but the sound is so low that it does not compromise the recording of the interview. Throughout the interview, Djenabou is interrupted by her children a few times, but it only confers authenticity to our exchange. I do not want her to stop what she would do, have I not been there, especially with her children.

### **Food Literacy**

Djenabou associates a good diet with a mixture of carbohydrate, fruits, vegetables and all the oils and minerals needed daily, all in good portion. For her, it all depends on the definition of healthy. She defines as unhealthy anything that is not good for consumption, that is, oversized portions. Indeed, it is not because she eats ice cream that it is bad. It depends on the amount of ice cream she consumes. In the same fashion, even though eating carrots is good, she considers that consuming too many carrots is unhealthy. She believes that this is common knowledge. Her grandmother used to cook *koki* with vegetables and fish inside. *Koki* is a dish made with black-eyed peas (see Image 1) as the main ingredient. Based on her knowledge, she considers that the palm oil used as one of the main ingredient to cook *koki* is not unhealthy. All that matters are the portions used.

When shopping, she mentions the complexity of nutritional information on food labels, in particular numbers and percentages. She laughingly says that the most important is that she understands what the product is as a whole. She does not like the idea of doing mathematics. If she reads beans or corn on a can, then she knows what is in the can. Any other details such as lipids, water etc, she does not pay attention. She presumes that before products go to the market, there is some level of sanitary assessment. The only time she tries to pay close attention to the content of a product is if she sees something that warns about certain types of food. She gives the example of that famous “plastic rice” that had become a media sensation as CNN reported it in Nigeria, which like Cameroon has a big

demand of rice (Adepoju & Adegoke, 2016). She says that someone offered her a pack of the famous “plastic rice” months after she heard about it and to this day, it is still sold in stores. This is something she would stay away from because when you have knowledge of something being unsafe, even after it becomes safe, you stay suspicious.

When asked about Cameroonian dishes, Djenabou qualifies it as heavy. For example, *eru* which is a traditional meal in the South West region of Cameroon is a vegetable that is eaten with *fufu*. It requires a bed afterward because you will feel stuffed. She means that there will be the need to have a bed nearby in order to lie down and digest. As to the health issues associated with Cameroonian dishes, Djenabou states that it depends on the region. In Boya for example, *eru* contains carbohydrate in the form of *fufu* or plantain, vegetables and proteins in fish and meat. She considers that vegetables are not supposed to be overcooked otherwise, they die and lose their nutrients and one ends up eating goop. They do not measure the temperature they are cooking with. The most important is for the food to be well cooked.

### **Learning Experience**

Djenabou learnt about food literacy from books, videos such as documentaries, research, the internet and from friends who shared something they may have learnt.

### **Impact of Student Life on Learned Habits**

The food that Djenabou consumes the most are boiled or fried plantains, vegetables, eating them raw being her favorite. For example, she would eat raw beet roots, carrots, broccoli, cucumbers or a salad. She also eats steamed or stir fry vegetables. When she does a salad, she adds in slices of chicken, pork ribs or steak. She sometimes consumes bread, but she can easily do without it. In a week, she may consume meat five times.

Djenabou thinks that dining out and takeaway food is okay depending on what they put in it and

the temperature they cook the food with. She thinks that take away food is fine as long as the container to pack them is adequate. She only orders takeaway food once a month and always eats at home. Other times, she may feel the desire to eat a sandwich at a Subway or a salad at a McDonalds. When she wants to be crazy, she orders a burger.

In regard to her food choices, she recognizes that she knows more now than she did back home. For example, she mentions that there are different kinds of *fufu* depending on the tribe they are from. Some people do their *fufu* with ground cassava while others do it with ground corn, ground plantain or ground rice, but they are all called *fufu*.

When she moved to Montreal, she noticed changes in her eating habits because when she lived in France, it was her father in law who cooked French dishes. He did not cook traditional Cameroonian dishes. As a result, she rarely ate traditional food. In Montreal, she consumes traditional foods, but once a week because her husband likes them and their preparation is a long process that is time consuming during the week. Besides, the meals are too heavy to eat on a busy schedule. It is not something that she would personally cook, but she does it because her husband likes it. Therefore, she tends to cook it during the week-end and only cooks what she knows. Although, she says laughingly, her husband may cook on occasion. She cooks traditional dishes no more than once a week

When asked where she finds traditional ingredients, she says that they are not difficult to get. Friends from Cameroon bring her some when they visit or she goes to the Indian or Africans shop in her neighborhood. Sometimes, she mentions that she may find some ingredient in Maxi for example.

### **Informed Substitution**

Whenever she does not find an ingredient for a traditional dish, she does not bother to look for it. Nevertheless, she sometimes substitutes one form of *fufu*\* for another. For example, she would replace *fufu* made from cassava with the one made with another type of carbohydrate. Also, water

leaves are a vegetable that are found in Cameroon, but can't be found in Montreal. She replaces it by spinach because it looks like spinach but has a slimy aspect. She was even surprised to hear from a friend that spinach is being grown in Cameroon. As to determine the nutritional values of both spinach and water leaves, Djenabou does not know. She never wondered about it. If she finds out that the foods she uses as substitutes are unhealthy, she will look for healthier options because she considers that we are what we eat. As an example, she said that it is believed that eating a burger is unhealthy, but nobody has really died from eating one. As a result, Djenabou considers that eating one once in a while is not going to kill her. If she hears that a commercial burger is not good, she will buy the ingredients and do it at home.

Table 5.1.

*Data from Nicole*

| <b>1. Food literacy</b>                              |   |
|--|---|
| a) Healthy diet<br>(Questions 7, 8, 20)              | <i>Je pense que c'est une alimentation équilibrée et diversifiée ou il y a des fruits, des légumes, de la viande, des vitamines, des nutriments... d'ailleurs tout ça fait partie de l'alimentation camerounaise. Nos produits sont bios. Tout ce qui est noix, céréales, fruits, légumes, poissons, viandes. On trouve aussi les féculents dans le maïs ou le mil qu'on utilise pour faire « la boule ».</i>   |
| b) Food and nutritional labels<br>(Questions 12, 13) | <i>Les noms populaires ou usuels sont faciles à comprendre mais tous les autres termes techniques, les conservateurs, les termes scientifiques sont compliqués. Mais il n'y a pas le choix. Beaucoup de gens achètent des produits qui contiennent des ingrédients qu'ils ne connaissent pas. [...] Probablement un 7 [rating 0 to 10]</i>  |
| c) Food safety<br>(Question 14 a)                    | <i>Définitivement un 8 [rating of 0 to 10]. Je sais qu'il faut des aliments frais. Il faut les conserver et les manipuler de façon hygiénique. Certains produits doivent être conservés dans des endroits secs, d'autres dans des endroits frais, à l'abri de la poussière et des insectes.</i>   |
| d) Traceability<br>(Question 14 b)                   | <i>Oui, du moment où le produit est dans le magasin, emballés, on se dit que le consommateur, on nous protège. Il y a le ministère qui, avant qu'on ne mette les produits en circulation J'imagine que tous les contrôles ont été fait donc dans l'ensemble, quand même, on fait confiance. Bon maintenant que certains, comme les chinois mettent des trucs à manger n'importe comment, ça fait peur mais sinon dans l'ensemble, on fait quand même confiance.</i> |
| e) Characteristic of<br>Cameroonian dishes           | <i>Oui, par exemple, le... comment on dit ça? Quand je parlais des protéines dans le Ndolé ou bien le Foléré ou le Baskdje, il y a des</i>  |

|   |   |
|---|---|
|   | <i>protéines. Il y a la viande ou il y a le poisson ou souvent même, on met des haricots blancs qui ont la tête noire qu'on met dans les sauces par exemple. Ca, c'est des protéines. Toujours dans le Ndolé, on met des arachides, ca aussi, c'est des protéines végétales. Quand on met les arachides dans le Ndolé ou dans le Foléré, c'est des protéines végétales. Il y a les protéines végétales. Il y a les protéines animales. Quand on mange nos fruits la qu'on mange, ca aussi c'est des vitamines. Soit c'st l'orange, soit c'est la mangue. On mange beaucoup de mangues en Afrique. Ca, c'est des vitamines aussi. Vitamine C, vitamine A, dans les légumes.</i>  |
| f) Health associated issues with Cameroonian dishes (Question 28) | <i>N/A</i>  |
| <b>2. Learning experience</b>                                     |   |
| a) Acquisition of food literacy (Question 9)                      | <i>Les huiles d'arachides et tout ca ne sont pas sains. J'ai appris ca en lisant et en regardant la télé.</i>   |
| b) Role of parents in acquisition of food literacy                | <i>Je pense que les habitudes alimentaires se prennent dès l'enfance avec les parents. Quand j'étais petite, les repas se passaient en famille et tout le monde mangeait dans un plat commun, il y avait de l'affection entre les membres de la famille et on partageait même les verres d'eau.</i>   |
| <b>3. Impact of student life on learned habits</b>                |   |
| a) Eating habits (Questions 6, 19)                                | <i>Oui, depuis que j'ai quitté le Cameroun, je mange beaucoup plus de plats européens, mais je n'aime pas les « junk food ». J'essaye de rester loin de ca.<br/>[...] Des aliments vides qui n'apportent aucun élément pour le corps. Depuis que je suis mariée, c'est toujours moi qui prépare à la maison.</i>  |
| b) Dining out/ takeaway (Questions 15-18)                         | <i>C'est la pire des choses qu'on puisse faire. Je ne fais pas confiance aux restaurants. Ils utilisent beaucoup de glutamate, des exhausteurs de gout, du sel. Ils donnent une bonne apparence aux plats et ca devient bizarre. Vous savez quand j'étais jeune, on utilisait beaucoup d'huile d'arachide, de mais ou de coton. Maintenant, je n'utilise que de l'huile d'olive en petite quantité. Je ne sais pas ce que les restaurants utilisent.<br/>[...] Peut-être une ou deux fois par mois dans des restaurants italiens ou indiens.<br/>[...] Je fais des plats à emporter et je les réchauffe au micro-onde. C'est souvent de la salade avec du poulet ou du poisson. Soit fait un bouillon, j'ai des sauces ou je fais des grillades [for lunch].<br/>[...] À la maison [for diner].</i> |
| c) Food choices   | <i>Les plantains.<br/>[...] bouilli ou frit.<br/>[...] de temps en temps [consumption of junk food]<br/>[...] Quatre fois. Quatre à cinq fois.<br/>[...] Des aliments vides qui n'apportent aucun élément pour le corps.</i>  |
| d) Choices of ingredients   | <i>[...] le Foléré avec le couscous. Le Baskodje avec le couscous. Tu sais ce que c'est non, Baskodje ?<br/>[...] le Baskodje c'est la sauce de gombo préparée avec de la viande, des épices, tomate et un peu de potasse qu'on met dedans pour ramollir. Ca devient un peu glissant, gluant. Quand on mange ca, on met soit du poisson dedans, soit de la viande et on mange ca avec du couscous.</i>  |

|   |   |
|---|---|
|   | <p><i>[...] c'est des feuilles, c'est des légumes. C'est de longues feuilles vertes qui sont acides. On les prépare soit avec de la viande, soit avec du poisson aussi et avec de la pate d'arachide [foléré].</i></p> <p><i>[...]Oui. C'est feuilles, la, c'est la feuille de l'oseille.</i></p> <p><i>[...] c'est une plante du Cameroun. C'est une variété de la plante qui donne le bissap. Le bissap, tu vois ce truc rouge avec lequel on fait la boisson la. Ce sont les fleurs de cette plante là. C'est une variété de cette plante là.</i></p> <p><i>[...] En fait le bissap, ce sont les fleurs d'hibiscus, c'est hibiscus la sont une variété du Foléré. L'hibiscus, on ne mange pas ces feuilles mais c'est une variété du Foléré. Ca donne les mêmes fleurs que le Foléré, et ce sont ces fleurs la quand ils n'ont pas éclos, on les prends, on les fait sécher et ce sont les fruits de l'hibiscus parce que quand ca a déjà fait les fleurs, ca fane, ca tombe, mais ce sont les fruits de l'hibiscus qu'on prend, on fait sécher et alors, quand on veut faire le bissap, on fait bouillir de l'eau et on fait infuser ca dans l'eau et dans cette eau la, on ajoute du sucre et ca nous donne du bissap.</i></p> |
| e) Cooking<br>(Question 21)                               | <i>Définitivement un 8 [rating of 0 to 10].</i>   |
| f) Consumption of traditional food<br>(Questions 22,23)   | <p><i>[...] on mange de la sauce tomate de poisson avec du plantain ou du poisson braisé ou du poulet braisé avec du plantain ou du bâton de manioc. Du Ndolé avec du bâton de manioc. Il y a tellement de met que je ne peux pas tout citer.</i></p> <p><i>[...] c'est des feuilles sauvages. C'est des feuilles amères [Ndolé]</i></p> <p><i>[...] oui, oui. Ca pousse à l'état sauvage mais il faut reconnaitre ca. Quand on les cueille, ils sont amers. C'est plus amer que la Nivaquine. Quand on les a cueillis, il faut faire partir l'amertume, on fait bouillir les feuilles. On hache d'abord les feuilles, on les fait bouillir avec de la potasses toujours. Lorsqu'on a fait bouillir, on lave ca avec plusieurs eaux. Comme ca, on fait partir petit à petit l'amertume et alors on peut préparer avec de la viande, du poisson fumé, avec de la pate d'arachide aussi.</i></p>  |
| g) Acquisition of traditional ingredients                 | <p><i>Oui, on trouve facilement dans les magasins tropicaux comme j'ai dit. De plus en plus, on a tout sur place.</i></p> <p><i>[...] c'est de bouche à oreille. Les premières personnes qui étaient déjà la nous ont dit la ou ca se trouve et de fil en aiguille, quand on a trouvé un magasin... les jours suivants on en découvre mais toujours, c'est de bouche à oreille.</i></p>   |
| <b>4. Informed substitution</b><br>(Questions 26, 27, 29) | <p><i>On trouve toujours des remplacements, des « a peu près.</i></p> <p><i>[...]Par exemple, quand on veut faire du Ndolé sur place, ce n'est pas toujours qu'on trouve des feuilles fraîches de Ndolé comme on en trouve au pays, quoi. Souvent, ce que les magasins tropicaux vendent, on ne sait pas quelles feuilles ils ont pilé, donc pour éviter ca, on peut remplacer le Ndolé par les épinards.</i></p> <p><i>[...] et si par exemple, on veut faire du couscous. Quand on veut faire du couscous et qu'on n'a pas les ingrédients nécessaires, on peut faire une purée épaisse de pomme de terre. On peut...avec la pomme de terre, on peut faire ca et ca fait comme si c'était du couscous de manioc.</i></p> <p><i>[...] Non, je veux dire le couscous d'igname. Par exemple, si on veut faire du couscous d'igname et qu'on n'a pas les ingrédients sur place,</i></p>   |

|  |  |
|--|--|
|  | <p><i>avec les flocons de pomme de terre qu'on utilise pour faire la purée de pomme de terre. On fait la purée de pomme de terre mais en plus épais. Ca fait comme si c'était du couscous d'igname.</i></p> <p><i>[...]: Bon, enfin à proprement parlé, quand on fait des substitutions, c'est parce qu'on veut manger quelque chose, qu'on n'a pas le truc sous la main. On ne va pas commencer à dire que, bon s'il n'y a pas... je ne vais pas manger, non. Sur l'échange, on fait peu attention au manque ou bien... à ce qui manque dans tel ou tel aliment. On mange parce qu'on a envie de manger tel ou tel chose. Moi je me dis que si je veux manger par exemple le couscous d'igname et que j'ai déjà de quoi faire, j'ai ca du coup. Je ne me demande quelle vitamine ca apporte ou quelle vitamine ca n'apporte pas, tu vois ?</i></p> <p><i>[...] Dans ces cas la, j'arrête [if a food item and its substitutes are unhealthy].</i></p> <p><i>[...] J'arrête. Il y a tellement à manger. Je me rabats sur autre chose.</i></p> <p><i>[...] Il y a aussi la commodité. L'habitude. Si je ne peux pas me passer, par exemple de mon couscous, pour rien au monde, même si ce qu'on vend au magasin n'est pas de bonne qualité, je continuerais de la manger. Il y a l'habitude alimentaire qui fera que je n'arrête pas de manger ca. Par exemple, les blancs sont habitués à manger du pain. Tu vois, non ?</i></p> <p><i>[...] Si ils ne trouvent pas du pain, ce n'est pas possible quoi. C'est cet exemple la.</i></p> <p><i>[...] Non, ce n'est pas nécessité. Je m'excuse. C'est une habitude. Alimentaire qui va te faire ne pas laisser tomber ce que tu as l'habitude de manger. C'est une habitude alimentaire. Ce n'est pas par nécessité, non.</i></p> |
|--|--|

Table 5.2.

## Questionnaire for Nicole

|   | Yes | Somewhat | Neutral | Very little | No |
|---|-----|----------|---------|-------------|----|
| 1. I believe what I hear on the media about food related illnesses                | X   |          |         |             |    |
| 2. Friends or media taught me what a good diet is                                 |     | X        |         |             |    |
| 3. Cameroonian meals are healthy  |     | X        |         |             |    |
| 4. I know what monosodium glutamate is  | X   |          |         |             |    |
| 5. I consider myself healthy by my diet has little to do with it                  |     |          |         |             | X  |
| 6. There are a lot of opportunity to make healthy food choices in supermarkets in | X   |          |         |             |    |

|   |   |  |  |   |   |
|---|---|--|--|---|---|
| Montreal  |   |  |  |   |   |
| 7. The most important is taste!                                     |   |  |  | X |   |
| 8. When I am hungry, I just grab what is available, healthy or not! |   |  |  |   | X |
| 9. I read labels before I buy cans and other processed food         |   |  |  | X |   |
| 10. I learn about food every day                                    | X |  |  |   |   |
| 11. I started to cook at a very young age                           | X |  |  |   |   |
| 12. Food literacy should be taught in primary and secondary schools | X |  |  |   |   |
| 13. My mother was the one cooking at home                           | X |  |  |   |   |
| 14. I do not like to think much about what is in the food I buy     |   |  |  | X |   |

### Nicole's Story

(Age 39; Married with 4 children; lost mother at young age and was raised by mother acquaintance, BA in accounting, emigrated from Cameroon in 2005 and immigrated to Montreal in 2015)

Meeting with Nicole was challenging because she unexpectedly travelled and is still oversea as I write this paper. Nicole is in her late thirties, married and originally from North East Cameroon. She has four children. She came to Canada with a student visa in 2015 to get a bachelor in accounting. She left her husband and children in France and visits them sometimes. Since she left Cameroon in 2005, she goes back occasionally.

Our interview took place over the phone since she travelled unexpectedly. I wanted her contribution to this study because the first time I met her, she seemed very knowledgeable about food. Even though I preferred face-to-face interviews, I made an exception because I did not want to lose



good data. In retrospect, she offered a lot of information.

Nicole made me think of my mother. Her relation with me was uninhibited. First, after our initial meeting, she found out that my second name was *Nafi* and only family members use it, so that is how she called me from that point forward. She is a quiet person, but at the same time, she is eloquent in a surprising way. She would respond to some questions very simply and at other time, she would respond to questions with a high spirit. She was in no way bothered by the voice recorder since it was over the phone. At one time during the interview, she even called me on a question I asked because she found the answer obvious.

### **Food Literacy**

She considers that a healthy diet is balanced and diversified, meaning a diet that contains fruits, vegetables, meat, vitamins and nutrients. All of the following are found in the Cameroonian diet, she insisted: “Cameroonian products are bio, nuts, cereals, and fruits...vegetable, fish and meat, but also starchy food such as corn or millet used to do *la boule*, (It is commonly called *fufu* in Cameroon which she sometimes refers to as *couscous*, not to be confused with *couscous* known in Maghreb).

She states that the popular or common names are easy to understand in food labels, but all other technical terms, conservators and scientific terms are complicated. A lot of people buy products that contain ingredients they do not know.

Nicole is aware that she needs to consume fresh food that must store and handle hygienically, that some products must be kept in dry places, others in cool places, protected from dust and insects. As long as the product is in the store, inside a container, she believes that the consumer is protected. Before any food product is put on the market, she figures that since it is in a package and since there is an institution that makes it pass quality control, they can be trusted. Even after she heard about the altered Chinese food products on the market, overall, she still trust what she finds in stores.

To name a few Cameroonian dishes she thinks are healthy, she cites *Ndolé*, the *Foléré*, *Baskodje* which all contain proteins as meat, fish or often even white beans with black heads. In the *Foléré* or *Ndolé*, she puts peanuts which are vegetable proteins. Her consumption of fruits such as mangos which is highly consumed in Africa and oranges bring her vitamins.

### **Learning Experience**

When asked about her acquisition of food literacy, Nicole said that she heard that peanut butter for example is not healthy from watching TV. She thinks that eating is taught by parents from childhood. She learnt about food from her aunts since she lost her mother when she was a child. When she was little, meals were eaten with family and everyone ate in a common dish and drank in the same glasses of water. This promoted affection among members of the family. Even now, she continues to get and trusts the information she gets from the friends and media because there has been a lot of association between food and health recently.

### **Impact of Student Life on Learned Habits**

When asked about changes in her eating habits since she left Cameroon, Nicole responds that she has been consuming more western food, but tries as much as possible to stay away from junk food. because they are empty calorie foods that bring no nutrient to the body. She thinks that dining out and takeaways are the worst thing one can do. That's the reason why she does not trust restaurants. They use a lot of glutamate, flavor enhancers, salt and they give a good appearance to dishes. It is a weird practice. She mentions that when she was young, she used a lot of peanut, corn or cotton oil. Now she only uses olive oil in small quantities. She does not know what restaurants use. Despite her suspicions, she said that she would eat maybe once or twice a month in an Italian or Indian restaurant. She makes her own takeaways and warms them in the microwave if needed. It's often salad with chicken or fish. She makes broth, sauces or grills for lunch and eats dinner at home. She mostly consumes boiled or

fried plantains, Foléré with couscous or Baskodje with couscous. Nicole explains that Baskodje is a slippery sauce made with okra and cooked with meat, spices, tomato and some potash to soften. It is accompanied with couscous. She also explained that Foléré are sorrel leaves, long green leaves that are acidic. They are prepared either with meat or with fish and peanut butter. Foléré is a plant that grows in Cameroon. Hibiscuses flowers are a variety of the same plant and are also used to make bissap, a sweet drink. When they are not hatched, they are taken and dried. It is then boiled in water, infused and sweetened with sugar.

### **Impact of Student Life on Learned Habits**

Nicole considers that she is a good cook. When asked about her consumption of traditional food, she said that she eats fish with tomato sauce and plantain or braised fish or braised chicken with plantain or *bâton de manioc* which mainly translate as a cassava stick is eaten with *Ndolé* sauce and is part of her traditional staple. There are so many traditional dishes that she feels she cannot list them all. But she also said that she eats *Ndolé* and explained what the dish is. It is constituted of wild bitter leaves that are picked in the wild. To cook them, the leaves are first chopped and boiled with potash. When boiled, it is washed several times in different waters to take out the bitterness. When the bitterness is mostly gone, she can cook it with meat or smoked fish and peanut butter. She finds ingredients easily in tropical stores and considers that more and more, we have access to a wide selection on products in Montreal, mostly due to the fact that people who were in Montreal prior to her arrival know stores where African products are sold and can refer her. She also finds some on her own when she walks around the city.

### **Informed Substitution**

Nicole figures that there are always replacements. For example, whenever she wants to cook *Ndolé*, she is not always certain to find fresh leaves as she would find in Cameroon. Most times, the

nature of traditional leaves sold by tropical stores is doubtful, as such, she replaces sour leaf used in Ndolé with spinach. Another example she mentioned is the cooking of *couscous*. When she wants to make *couscous* and she does not have the necessary ingredients, she can substitute it with a thick mashed potato so that it looks like yam *fufu*. Nicole considers that when we make substitutions, it's because we want to eat something. We do not have the ingredient at hand. We're not going to say that because we do not have the ingredient, we are not going to eat what we want. While substituting, we pay little attention to what is missing in an ingredient. We eat because we want to eat. For example, if she wants to eat yam *couscous* and has the mean to substitute it, she does not wonder about vitamin content. But if she finds out that her substitutions are unhealthy, she says that she would stop consuming it because there are so much other things she can eat. She would look for another way to replace it. The only reason she would continue eating something she found out is unhealthy would be because of the convenience and habit. For example, she confesses that she cannot do without *couscous*, even if what is sold at the store is not good quality, she will continue to consume it because of habit. She compares her addiction to the consumption of bread in occident. She figures that people living in occident have an addiction to bread. She insists that this behavior is not out of necessity, but a consequence of habit.

Chapter 2 presented the data gleaned from the four interview participants. In the next chapter the data will be analyzed for common themes and discussed in the context of the literature review presented in the first chapter of this thesis.

## CHAPTER 3: ANALYSIS

### Emerging themes

One of the emerging themes that transpired through the interviews and subsequent questionnaire was how they construct meaning, i.e. the evolution of the Cameroonian participants learning process from youth to adulthood, how the information they receive changed and where they stand now. All participants were adamant that because they depended on their parents to cook when they lived with them, they did not worry about food safety of healthy food. But now, their outlook has changed since they live by themselves.

Another theme is access to information either via internet or other media outlet such as TV. Whenever I asked about the source of their information about food, participants referred to Youtube, Whatsapp or TV. I have noticed a dependency on search engine and videos and a loss of hands-on instruction where Cameroonians observe and replicate what their parents did in the kitchen.

This use of media is followed closely by the notion of trust. Participants expressed their suspicion of the food labels and the handling of food in supermarkets. They have to rate their knowledge of food according to the level of trust they put in what they hear in the media.

Subjectivity defines each participant's knowledge about food. They all have different opinions that sprout from their own personal experience, identity and socio cultural background.

In addition, nostalgia seems to encourage Cameroonian students to find the same emotional

attachment to food that they had in Cameroon. It was the case for participants who left Cameroon when they were young and those who left when they were adults.

Also, the parental guidance in the participants' education is very important and the starting point of the learning process. How do participants make use of that knowledge? Is it put into practice to learn more about traditional food from Cameroon but also food in general? After all, one tends to refer to what one learns when one was younger.

## **Discussion**

### **Constructive Learning**

When talking about education, we are bound to address the topic of transformative learning at one point. Mezirow (1994) defines transformative learning as a social action that comes from either cumulative or sudden transformations that requires reflection from the learner. Indeed, during the interviews and in the literature, I noticed that the definition of food literacy is not carved in stone. It is a definition and a subject that is always evolving, not only because the Cameroonian participants move from their country to another and had to adapt to their environment, but also because of other factors such as media outlets, socio cultural experiences and the transfer of knowledge from one setting to another. Half of the participants report sharing a meal with family members when they were young, but that habit has changed when they moved to America or Europe. That is mostly due to the fact that they came to Montreal alone to study. Djenabou was a married, mother of three children in young age. She shared meals with her husband and children. Even though Nicole has children, she does not share meals like she used to in her childhood. For other participants whose family did not accompany them, the lack of family meals does not bother them. For Marine for example, even though she faces the reality of not having her husband and children with her, she missed meals shared around a table. It is a habit all participants broke due to circumstance though. Also, all participants have a concept of health that they

define according to what they heard in the media, from friends or from family. Nonetheless, all still maintain a diet that contains traditional foods which contain high levels of sodium and oil. Even when they say that they avoid harmful foods from their diet, traditional dishes such as *eru* or *koki* are still consumed. The *Eru* sauce contains about one quarter of oil that is eight times the suggested daily intake of oil for an adult based on Health Canada food guide.

Additionally, the use of palm oil in the preparation of *koki* is problematic because it contains high content of saturated fat, which has a propensity to cause weight gain and cardio-vascular problems. Marine considers healthy diet to involve the consumption of fruits and vegetable for example. She states that people eat healthier in Cameroon than in the United States, especially when they consume oils, but she said that she cannot eat without *Maggi* cube or sauce. That sauce has high content of monosodium glutamate, but she chooses to consume it because she became addicted to the taste since she was young. Participants have their own definition of what healthy diet is, but they are still attached to the way things were done food wise when they lived in Cameroon or with their parents. Such habits are for example the high consumption of meat and the assumption that Cameroonian products are bio, so they are healthy. Nicole, for example admits that she would continue consuming food that is unhealthy only because it may be more convenient or because she is used to it. Even when they maintained practices introduced to them since childhood, the participants' food literacy has evolved according to the decisions they made once they became aware of certain factors related to the consumption of certain types of foods. So even though half of the participants also mentioned their mothers as being the one in charge of teaching about food, their conception of food literacy has evolved over the years. For example, all the participants were confident about their knowledge of cooking traditional food. Nicole and Marine stated that they still cook dishes that require the use of palm oil (dishes such as le *Gombo* and *Koki*). In a study conducted by Imoisi, Ilori, Agho and Ekhaton (2015), it

was found that palm oil contains as high as 50% of saturated fat. Compared to other oils, it is more likely to raise cholesterol when it is used in excess. The participants continue to use these ingredients while being aware that they can be harmful. Changes require time in order to overcome habit. I noticed that the strategies used by participants to maintain the practices they learned since their childhood are to reduce portions and/or to consume little. Habits are hard to break. Nicole compared the consumption of bread in Europe to her consumption of *la boule*. I could not help but smile when she said that she would keep on consuming it even if she found out that it is unhealthy. If we notice a change in food literacy among Cameroonian participants, it is clear that there is still a desire to maintain the cultural heritage related to the use of ingredients, some of which have been proven to be health hazards. As Mezirow (1994), Mullan and Wong (2010) said, knowing about healthier alternative does not lead to necessarily change of behavior. However, the desire to maintain habits does not keep participants from embracing new knowledge they gain through their entourage and media.

### **Access to Information**

The media is regarded as an informal education tool. Every year, information on media platforms increases and changes, and this is due to the fact that technology and the ability to use it is also in constant motion. As a result, people are becoming increasingly aware of the contents of their plates. All participants said they used media platform in one form or another. YouTube channels contain an array of information that is more accessible to an audience that tends to be tech and internet savvy. The information does not come only from a single source but from several and that is what makes it so attractive: the multi-dimensionality of knowledge. In the 1970s, Google and Whatsapp did not exist yet, so it was impossible for my parents to search information as I do today. I mention the 1970s because that's the years my parents were teenagers. That is also the period when my mother started to learn skills such as choosing, buying and cooking food. Nowadays, search engines have



become the new maternal reference. Actually, Google search engines is so much used that the brand has turned into a verb. It is not defined as a passive brand name, but as a name of action, one that is now the encyclopedia of knowledge. All interviews brought out the same reference to media outlets. Tablets, cell phones and other devices with internet access have made it possible to reach not only our mothers, but also all mothers around the world. Amina reported that she needs to call her mother in order to receive instruction to cook traditional meals while Djenabou who lost her mother from an early age refers to friends, the internet and television to learn about food.

There are also more customary ways to get the information and that is by turning the TV on. Documentaries such as *Food Inc.* or *Rotten*, which denounce the scams practiced by industry giants when they hide illegal acts or the content of the food they produce. Documentaries are appealing because they are a source of information that is easily accessed and easily registered. Food literacy is no more limited to our vicinity. Participants received an array of potential information from different sources. The issue now is not the amount of information they receive, but it is to determine what part of the information to trust. In the questionnaire, all participants noted that they believe what they hear on the media about food related illnesses. Nicole was the only one who said that she trusts what she hears. The question of trust in the learning process is an important theme in defining what can be safely consumed. The decision to believe some information and ignore another depends on the individual. It was interesting to note that during interviews, participants did not show as much distrust toward information produced by the media as they would for the products they buy. For example, Amina said that she does not buy meat if she does not see who handles it, but she does somewhat believe what she hears on the media about health related food issues. Also, Nicole and Djenabou both stated that they trusts that the food they buy in stores will have passed through some type of inspection by authorities, so they trust that what they consume is safe. On the other hand, Nicole believes messages that she

receives on Whatsapp about food safety. Such messages include speculations and videos of plastic rice being manufactured in China. It is artificial rice that circulates on the market and that is dangerous to ingest. Those reports may be true or fake, but the fact is that participants give more weight to facts they learn through media outlets than what they read on labels from the food they buy in stores. This is problematic since facts that are learned in mass media, and I'm talking about social media such as Facebook and Twitter, lack structure, are not reliable and may or may not be manufactured to create fear and confusion or may even be the product of mere assumptions.

### **Subjectivity**

Were participants in this project able to define what food literacy is? I can tell from the answers I received during the interviews that they partly did. They have some type of knowledge. I say that because as we have seen, defining food literacy is not simple, but they have access to all sorts of search engines, they have large food choices and they know about alternative food. Also, they have the incentive to learn since they value their health and that of the people they care for. Each participant had a different belief about what constitutes healthy food, so I combined all of their definition of healthy diet to come up with a single one: A healthy diet is constituted by balanced non altered food that has nutritional value and is consumed in adequate portion. The gray area resides in the meaning they may give to each terms. Each participant has their own idea of what a balanced food is, what portion is too large, what is too small? At what point can a food be considered to have been altered? Cultural background and prior knowledge in all levels of life can account for the disparity between participants. For example, in Cameroon, some children are taught to cook at an early age, some are not; every region has its own traditional food and considers some ingredients more beneficial than others, especially foods that have medicinal purpose such as wild plants; some families consider large portions healthy, other don't. This is part of the cultural knowledge they carried with them when they moved to Canada.

This is when objectivity and assimilation of one's culture clash because on one hand, they know that they should apply their newly learned knowledge about healthy eating and on another, they stay devoted to certain aspect of their cultural heritage.

### **Nostalgia**

Is knowledge learned in Cameroon put into practice in Canada? It should be noted that the knowledge acquired in Cameroon by the participants who left the country when they were adults are put into practice in the host country. On the other hand, the participants who left when they were teenagers or children did not receive the same level of traditional food education as Nicole and therefore they rely on their mother, as was the case for Marine, or on knowledge learnt after leaving Cameroon. It must be said that of all participants, Nicole is the only one who started to cook since a young age and she was very eloquent when she talked about the preparation of traditional dishes. Marine expressed nostalgia toward traditional food while Amina and Djenabou did not miss them and only ate them on occasion. I come to question if traditional food preparation is progressively lost when Cameroonian students find themselves in a foreign country or does it rather experience a change because of the newly acquired food knowledge. Instead, I felt that even though participants learn every day about food and food safety, being in a different social and cultural setting encourages them to go the extra mile in order to learn more so they can cook new dishes and traditional dishes they were not used to cook while in Cameroon. Indeed, immigration to Canada seems to be developing in three of the four participants a desire to acquire knowledge of their traditional dishes. It even seems that the longer they have stayed outside of Cameroon, the more nostalgic they are. I began to notice this tendency in Marine when she described to me the way she called her mother to ask her instructions to make traditional recipes. Nicole was more experienced in food. Amina and Marine left Cameroon when they were young while Nicole and Djenabou left when they were over 20 years old. As a result, the age of

the participants when they emigrate from Cameroon correlates with knowledge about traditional food and Cameroonian food preparation. Nicole prepared traditional dishes at least four times a week. This is impressive, considering that two participants said that traditional dishes take a long time to cook, which is the reason why they cooked them rarely or only on weekends. Additionally, even though the participants are in a country where the ingredients that they could easily find in Cameroon are rare in Canada, three of the four participants stated that they go to tropical stores and are willing to make substitution for traditional items they do not find. This stems from a desire to preserve what is part of their cultural identity.

### **Parental guidance**

Third, while it is difficult for participants to determine exactly what they learned from their mothers, it is apparent that some knowledge has been clearly established as maternal. Figures show that from 2006 to 2016, in Cameroon, there have been a small percentage of men attending primary and secondary schools than there were women (UNESCO, 2018). On the other hand, women's role is still engrained within the paternalist idea of the caring and motherly figure who cooks for the household. This idea of the bread winner being male and being more likely to receive a formal education still persists in Africa and is considered by some as part of a cultural heritage more than a social practise. This is not to say that it continues to be so in Cameroon. I chose to bring the issue of gender role into this discussion because there is a need to see how it computes when knowing about food becomes intrinsically linked to formal education. I wondered about this issue while conducting my research as food decision became more and more embedded into the idea of being in control of what one consumes or ultimately over what others that are under one's care consume. As I mentioned above, the study by Makoka (2013) on the impact of maternal education in three African countries showed that an increase in mother's education correlates with a large decrease of child malnutrition. The educated decisions

that lead to the food choices one makes have an impact on the household. Djenabou is an educated and professional woman and a mother of three very young children. Every meal she cooks and serves is her decision. She cooks traditional dishes because her husband is fond of them, but she is the one who goes to the Indian store to get the ingredients and cook them. She picks original ingredients or substitutes, reads labels at times, and ultimately, she is the one who puts them together in the kitchen. Every single step of the way, she makes educated choices.

Accordingly, the same way a child would start to develop basic language skills with parental support, they are also conditioned to assign value to certain types of food they encountered in their youth. Learning about food began with the mother and evolved simultaneously with the socio-cultural environment of the participants. I sometimes find it difficult to dissociate cultural from maternal knowledge. After all, it is through the mother that participants started to learn about their culture, how to eat, how to dress, how to speak to adults, how to fit in a gender role. So what happens when this guidance disappears? All participants reported that their eating habits changed when parental guidance disappeared, either because they married or moved to Canada for their education. Therefore, there is a break from the maternal tie, but also from the cultural influence. Cultural practices are valued in Cameroon and therefore play an important role when it relates to food literacy. For example, Ngaoundéré, the village in which my parents were born, consumption of red meat is high, partly because cattle and poultry farming have always been the norm. In short, whenever I am invited to have dinner with a Cameroonian family, I note that there is always meat on the table. In the absence of meat, the father never fails to confront the mother sometimes in a teasingly way, sometimes in a more serious manner. I asked my father the reason for this attraction to meat and he replied that a meal where there is no meat is not a meal at all. All the participants reported that they consume meat many times a week. So the contribution of cultural influences continues despite the change in social environment. If given

time, I believe that without losing their cultural baggage, Cameroonian students who immigrate can adapt to the social environment of the receiving country by bringing alteration to their prior knowledge and practices. In my family, we have always consumed a lot of meat, yet I made the choice to stay away from meat and eat only fish as animal protein source. Several Cameroonian acquaintances find my decision bizarre, so I refrain to mention that my next step is veganism.

### **Recommendations for Future Research**

As stated earlier, food literacy is a recent field in education as it was previously relegated to health education. Even more, not much research has looked into the food literacy of Cameroonian students in America. Even before I undertook the process of meeting with the participants, I had my own values and beliefs about food, what food literacy is. As such, this work is an important endeavour and I hope a gateway to future investigation. For example, an in-depth study of food literacy among Cameroonians students that involves an ethnographic research with field observation could be carried as it would bring a more comprehensive analysis of participants in action in specific settings (restaurants, markets, kitchens, and gatherings) and would involve different stages of data collection. What is undertaken here is not participants in action. Even though this study looks at what the participants say, I wish to follow it in the future with what participants do because most often, there tends to be a gap between what is told and what is actually done and vice versa. Both are equally important and complementary.

While I was looking for potential candidates for my research, upon introduction to male candidates, it was determined that they almost never cooked, were married and left the cooking to their wife or that they had no interest in being part of the research. It seemed a disappointment at the time, but as the study was carried with only female participants, it became evident that focusing on women's food literacy provides results that are more consistent with the scope of this study. Since colonialism,

vestiges of paternalist and capitalist ideologies determined the place that one has in the Cameroonian society. It went hand in hand with the appropriation of power and decision making, a reminiscence of the colons' influence that has persisted even after the independence. On each sphere of the Cameroonian society, there was the father figure who knew what was best for those under his wing. Like a large machinery, each member of this family had a role to play. Men were involved with moneymaking and women's role turned out to be domestic, the nurturing mother and cook. This is not to say that Cameroonian women were only reduced to this. On the contrary, many Cameroonian women were essential to the economy of the country, they attended schools, were involved in business or owned their own businesses. This is merely to show that gender roles had been long established into the Cameroonian psyche and like any other neo-colonial idea, these persist. According to Nana-Fabu (2006), even today, women still struggle with gender role in Cameroon. As such, further research on Cameroonian male food literacy could be carried in the future as it may offer a different type of input.

### **Conclusion**

This research allowed me to learn about the eating habits of my fellow citizens. I know few Cameroonians in Montreal and apart from the members of my family. I always had very little contact with Cameroonian people because in any country where I lived, I met more foreigners than people of my own country. I am completely ignorant of their experiences abroad, experiences that I realize I have gone through when I lived in different countries. I can honestly say that after the interviews, I recognize myself in their stories about the nostalgia related to the dishes that our mothers prepared and the use of the media to learn more about food. We are constant learners because we never stop absorbing information and we do so in many ways. I believe that it is important to determine the foundation of a person's learning process.

I was surprised to see how subjective knowledge about food can be, but in general each

participant's idea about what healthy food is sprouts from a credible train of thought. It turns out that learning about food requires Cameroonian students in Montreal to go through the process of transformative learning with changes in the social environment. One of the ways in which they gain knowledge is the extensive use of media and search engine for which they must use their better judgement to make informed choices. As a result, subjectivity becomes part of the process of gaining knowledge about food because not only does the meaning of food literacy change geographically, but also the information available to learners shifts with new discoveries in health and science. Two of the four participants seemed to have some knowledge of macro elements linked to food literacy, elements such as food engineering and strategies used by the food industry.

The mother figure (or an aunt in her absence) is very present in the introduction of food literacy in Cameroon, but when Cameroonian student immigrate to another country, the mother and thus, the cultural background has less influence in the choices they make when it comes to food. Nonetheless, Cameroonian immigrants in this study maintain some of that influence at the same time as they expand their knowledge about food in their new environment. Since inferring meaning to prior and newly acquired knowledge can be subjective, it is left to the individual discretion to establish what they consider to be healthy food.

In terms of learning and education applications, at a minimum, these narratives and the findings of this thesis point to the urgent need of better structured curricula for knowledge about healthy food habits for schools and for adult education contexts, programs and electronic platforms.



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## APPENDICES

### Appendix A

#### Appendix A-1: English Interview Questions

##### Main questions:

1. When did you emigrate from Cameroon? Permanent immigrant or student visa or other
2. How long have you been outside of Cameroon
3. Do you travel back? How many times a year?
4. How long have you been in Canada?
5. What is your educational background?
6. Did you notice any change in your eating habits since you have been in Montreal?
7. What do you think is good diet?
8. How would you characterize healthy food?
9. How did you learn about healthy food choices? a) in Cameroon; b) in Montreal

##### Probing Research Questions:

10. How old are you?
11. What region of Cameroon are you from?
12. Can you understand all the ingredients the nutritional information on food labels?
13. How would you rate your knowledge of food labels on a scale of 1 to 10?
14. How would you rate your knowledge of food in general in Montreal and in Cameroon?
  - a. How to choose the ingredients?
  - b. How to cook them?
  - c. How to safely conserve them?
15. What do you think of takeaway?
16. How many times in a month do you order food or eat out?
17. Where do you usually eat lunch?
18. Where do you usually eat dinner?
19. What types of food do you consume the most?
20. How many times do you eat meat in a week?
21. If it applies, how many times/week do you eat a home prepared meal? Who cooks it?
22. Do you eat traditional dishes? Most often consumed traditional foods/dishes are:.....
23. Can you describe a traditional dish you consume the most?
24. If yes, where do you find the ingredients to prepare them?
25. Are they difficult to get?
26. What do you do when you don't find an ingredient you need?
27. Why would you substitute an ingredient for another? Can you give me an example of a substitution you often make?
28. Do you know how healthy the original Cameroonian food choice/diet is and how healthy the substitute food choice/diet is?
29. What will you do if you find out from reliable sources that the foods/diet you choose and their substitutes are unhealthy? What would be the main reason for not changing your consumption

of the food/diet you have chosen even though you find out that it is unhealthy?

## Appendix A-2: French Interview Questions

### Questions générales:

1. Quand avez-vous émigré du Cameroun? Sous quel statut avez-vous émigré? Visa étudiant, visa permanent ou autre.
2. Depuis combien de temps avez-vous été hors du Cameroun?
3. Retournez vous souvent au Cameroun? Combien de fois par an?
4. Depuis combien de temps êtes-vous au Canada?
5. Quel est votre niveau d'étude?
6. Avez-vous remarqué un changement dans vos habitudes alimentaires depuis votre arrivée à Montréal?
7. D'après vous, qu'est-ce qui constitue une alimentation saine?
8. Selon vous, qu'est ce qu'un bon aliment?
9. Comment/par quel moyen, avez-vous appris à prendre de bonnes décisions alimentaires? a) au Cameroun; b) A Montréal?

### Questions approfondies

10. Quel est votre âge?
11. De quelle région du Cameroun êtes-vous?
12. Pouvez-vous comprendre la signification de tous les ingrédients ainsi que les informations nutritionnelles sur les étiquettes des aliments?
13. Comment qualifieriez-vous votre connaissance des étiquettes alimentaires sur une échelle de 1 à 10?
14. Comment qualifieriez-vous vos connaissances des aliments en général à Montréal et au Cameroun?
  - a. Comment choisir les ingrédients?
  - b. Comment les préparer et les cuisiner?
  - c. Comment les conserver de manière hygiénique?
15. Que pensez-vous des plats commandés dans les restaurants ?
16. Combien de fois par mois mangez-vous des plats que vous n'avez pas préparés vous-même ou dans des restaurants ?
17. Où mangez-vous d'habitude votre déjeuner?
18. Où mangez-vous d'habitude votre dîner?
19. Quels types d'aliments consommez-vous le plus ?
20. Combien de fois par semaine consommez-vous de la viande ?
21. Si cela s'applique, combien de fois par semaine mangez-vous un repas à la maison ? Qui le prépare ?
22. Consommez-vous des plats traditionnels ? Les aliments/plats traditionnels les plus consommés sont : ...
23. Seriez-vous en mesure de décrire un plat traditionnel que vous consommez le plus ?
24. Si oui, où trouvez-vous les ingrédients pour les préparer ?
25. Sont-ils difficiles à obtenir ?

26. Que faites-vous lorsque vous ne trouvez pas un ingrédient dont vous avez besoin?
27. Dans quel cas substituez-vous un ingrédient à un autre? Pouvez-vous me donner un exemple de substitution que vous faites souvent ?
28. Êtes-vous en mesure de définir les apports nutritionnels et alimentaires des plats traditionnels Camerounais ? Quand vous faites des substitutions, avez-vous conscience de ces apports nutritionnels et alimentaires.
29. Que ferez-vous si vous découvrez de sources fiables que les aliments / régime alimentaire que vous choisissez et leurs substituts ne sont pas des choix saines ? Quelle serait la raison principale qui ne vous ferait pas changer vos habitudes alimentaires malgré que vous sachiez que celles-ci ne sont pas bonnes pour votre santé ?

## Appendix B

### Images



Image 1. Front left to right : palm oil, black eye peas, plantain *fufu*, djansan, *Maggi* cubes.

only natural,  
base and natural  
and sweeteners.

ment de la base de  
plastique, ainsi que  
arômes et des  
naturels.

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| Valeur nutritive                                  |                       |
|---|-----------------------|
| Per 2 pieces (2.5 g) /<br>pour 2 morceaux (2.5 g) |                       |
| Amount  | % Daily Values*       |
| Teneur  | % valeur quotidienne* |
| Calories / Calories                               | 5                     |
| Total Fat / Lipides                               | 0 mg 0%               |
| Carbohydrates / Glucides                          | 2 g 1%                |
| Protein / Protéines                               | 0 g                   |

\* Not a significant source of other nutrients.  
\* Source négligeable d'autres éléments nutritifs.

Ingredients / ingrédients  
Cane sugar, glucose, gum base (chicle, calcium carbonate, candelilla wax, dehydrated citrus peels), brown rice syrup, natural flavours, citric acid, gum arabic, resinous glaze, beta carotene, beeswax and carnauba wax. Soy present in facility.  
Sucre de canne, glucose, base pour gomme à mâcher (chiclé, carbonate de calcium, cire de candelilla, pelures d'agrumes déshydratés), sirop de riz brun, arômes naturels, acide citrique, gomme arabique, glaçage à base de résine, bêta-carotène, cire d'abeille et de carnauba. Présence de soya dans nos installations.

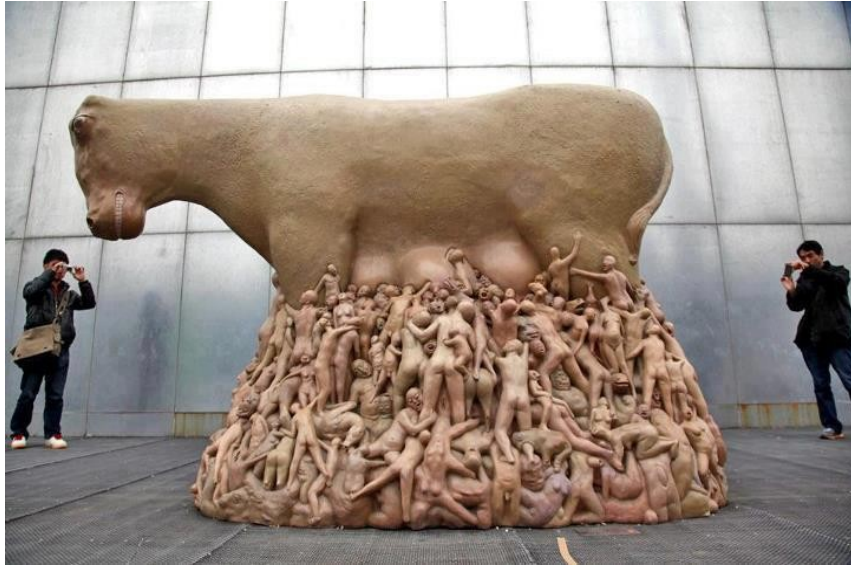
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Image 2. Package of Glee chewing gum





**Image 3. Sculpture by Liu Qiang. [<https://www.pinterest.ca/pin/231513237064918728/?lp=true>]**