2010

An Apple A Day: Exploring Food and Agricultural Knowledge and Skill Among Children in Southern Ontario

Shannon Alberta Kornelsen
Wilfrid Laurier University

NOTE TO USERS

This reproduction is the best copy available.

Your file Votre référence
ISBN: 978-0-494-68708-6
Our file Notre référence
ISBN: 978-0-494-68708-6

AN APPLE A DAY:
EXPLORING FOOD AND AGRICULTURAL KNOWLEDGE AND SKILL AMONG CHILDREN IN SOUTHERN ONTARIO

by
Shannon Alberta Kornelsen
(Honours Bachelor of Arts, International Development, University of Guelph, 2008)

THESIS

Submitted to the Department of Geography and Environmental Studies
in partial fulfillment of the requirements for
Masters of Geography in Geography and Environmental Studies

Wilfrid Laurier University, 2010

ABSTRACT

AN APPLE A DAY: EXPLORING FOOD AND AGRICULTURAL SKILL AND KNOWLEDGE AMONG CHILDREN IN SOUTHERN ONTARIO

Shannon Kornelsen
Wilfrid Laurier University, 2010

Advisor:
Professor Alison Blay-Palmer

While the literature on food has somewhat addressed rudimentary food skills and their importance in the creation and maintenance of a healthy population, there remains a serious lack of research into the importance of food and agricultural skills and knowledge transference to children, especially given the rise in diet-related illnesses. This study focuses on the perceived importance of food and agricultural education initiatives, as well as the opportunities and barriers that exist within the elementary school classroom to incorporate food and agricultural topics, in the context of southern Ontario, specifically Wellington County. Drawing on Wilkin's concept of 'food citizenship' as a desirable end goal of alternative food movements, food and agricultural education presence in the curriculum is researched for its potential contribution to healthy, active communities.

This study highlights experiences and insights through key informant interviews with teachers, parents, Upper Grand District School Board employees, nutritionists, and people involved in relevant community organizations, to determine the current role that formal secondary-level public educational institutions, and the educators within them, play in the dissemination of food and agricultural knowledge and skill. More specifically, the questions asked focus on what opportunities exist for teachers to enable and assist their students in becoming *food citizens*, and specifically: in what ways does the provincial curriculum as it

currently exists, lend support to teachers, who can then enable students to become food citizens? And perhaps most importantly, do food skills and knowledge contribute to the holistic development of young people?

This study uses a qualitative approach, through the use of key informant interviews and curriculum analysis. Research findings indicate that food and agricultural education is seen as important to respondents, and that there are a number of complex opportunities for and barriers to including these topics in classrooms and encouraging greater food citizenship in young people.

ACKNOWLEDGMENTS

I am full of gratitude to my advisor, Alison Blay-Palmer, for the opportunity given to me by working with her. Her guidance and support was instrumental in this research, and her passion for her work is contagious! Her belief in my research, and my research abilities has given me the confidence necessary to approach my thesis with verve and excitement. Additionally, I would like to extend my sincerest thank-you to Robert Feagan, my committee member, whose eloquent feedback and insight took this research project to the next level. I am honoured to have been able to share my work with him.

To all participants who took time out of their busy schedules to share their experiences with me, thank you.

For Mom whose optimistic delight at the joys in this world kept me motivated and excited, and for Dad whose strength and assuredness became shelter for me in many a storm, this thesis is in honour of you. For Oma, you've been telling me my whole life what a "tough, bright cookie" I am. I hope that you know how much of this has been possible because of your steadfast belief in me.

To AJ, your patience and support means more to me than you'll ever know, and certainly more than I could ever type. Jenny, your unwavering and sturdy love gave me such a strong foundation, this wouldn't have been possible (or at least not nearly as fun) without you! For all other beloved family and friends who gave me both shoulders and shoves when needed (friendly of course), I am in your debt!

Finally, this thesis is in honour of all women, past and present, who provide food made with love to their families. This is a task that is often as invisible as it is thankless, and the absence of it is something of which we are only beginning to see the consequences.

TABLE OF CONTENTS

LIST OF TABLES/FIGURES

CHAPTER ONE: INTRODUCTION

1.1 Research Problem

As humans impacted by modernization, we have become increasingly distanced, disengaged, and alienated from the world we inhabit. This dislocation is reflected through our relationship to food. This said, a holistic approach to studying the relationship between people and their food compels us to take a closer look at our connections to nature. For this research, I investigate this question specifically in the sense of asking: in what ways have we constructed our world so that we end up divorced from our food? One doesn't have to look far to see this disconnection, whether it is the growing process, or the impacts that certain food choices have on our bodies, our neighbours and our environment as "the route from field or factory (or lab) to table" is more complex than ever before (Jaffe and Gertler, 2006, 145). Scrinis defines this as a *disconnection,* and explains that it "may take a number of forms, including a physical disconnection from—and lack of knowledge of—where, how and by whom foods are produced" (2007, 121-122). This is not an accident, for my reading of the extant food system dynamics suggests that the ever-burgeoning industrial food system counts on this disconnection; and that by disconnecting consumers, they become consequently 'deskilled'[1] and therefore increasingly *reliant* on industrial food products.

From this juncture, we see that deskilling refers to the systematic process of becoming both literally and figuratively less skilled in a variety of ways, over a period of time. With specific reference to food, deskilling results in a loss of home based food preparation, the loss of

[1] This is a term that is unpacked in greater detail in Chapter 3.3.

nutritional knowledge, traditional food knowledge, as well as an overall lack of knowledge with regards to environmental or social impacts of the globalized food system. This deskilling process is a by-product of a globalized food system, in which industrialized and processed foods have become the answer to a busy schedule and a lack of overall food skills, and in terms of the industrial food economy, a means to ensure continued short-term profit. The generational impacts of deskilling are only beginning to become acknowledged in the academic world, as the apprenticed nature of food skills (being passed down from care-giver to child) means that dramatic diminishment in food skills take time to fully materialize.

There has been much research on the cause[s] of this disconnection, including the 'culture of convenience' and provocative marketing (Jaffe and Gertler, 2006). But what has not been adequately addressed in the literature, are some of the results or consequences of this disconnection. One of these is the role that education plays, in the development of healthy food practice. Because more and more children lack the opportunity to develop both practical food skills at home, and a strong knowledge of food and agricultural systems at school, entire generations of people are at risk of becoming wholly dependent on the industrial food system; the social, environmental and health costs of which we are beginning to see. As a means to capture the simple and yet profound consequences of such disconnection, Levkoe writes, of his own experience working with children, that "many are shocked to discover that a carrot grows underground or that a hot dog comes from a living animal" (2006, 90). Further examination on the status of children's food skills and literacy must be explored, as a lack of overall food knowledge would give the industrial food system guaranteed access to generations of people who do not have skills sufficient enough to sustain themselves or their families outside of this

system (Lang, 2001).

1.2 Aims and Research Questions

Food education, for the purposes of this study, is defined as educational resources and activities that explicitly encourage a greater food, agricultural, and health literacy. This includes an understanding of agricultural and natural resource systems (i.e.: from field to compost heap), a basic ability to prepare culturally appropriate meals oneself, and an understanding of what constitutes a healthy diet, from a nutritional perspective, as well as an environmental one. This definition will be discussed in greater detail in Chapter 2.6. Because food education encompasses themes of food, agricultural and health literacy, understanding and assessing food education through the lens of food citizenship is ideal, as food citizenship is "the practice of engaging in food-related behaviours...that support, rather than threaten, the development of a democratic, socially and economically just, and environmentally sustainable food system" (2005, 271).

The purpose of this study is to gain a better understanding of the perceived importance of food education and some of its notable benefits. Additionally, this study investigates the role that food education initiatives play in the positive development of food citizenship and some of the barriers and opportunities to encouraging food citizenship in the classroom.

By focusing on the elementary school classroom as a study site, the information collected may raise or create opportunities to increase food citizenship, which can then be highlighted to ascertain at what level the current curriculum recognizes that the meaningful inclusion of food and agricultural topics is an important component in the healthy development of a citizen. As a consequence, by acquiring a better understanding of the role that food education initiatives can play in this development, there can also be a better understanding of the need for supporting

these initiatives, as the rapid rise in obesity and diabetes among children suggests is necessary. The objectives for this study include illuminating responses to the following questions from the participants in the study, located in Wellington County, Ontario:

Question 1: Does food education for children matter?

Question 2: Are there positive impacts that food education has on children?

Question 3: What opportunities exist for teachers to enable students in becoming food citizens?

Question 4: In what ways, if any, does the provincial curriculum as it currently exists, lend support to teachers, who can then enable students to become food-literate?

1.3 Outline of the Organization of the Thesis

The following chapter provides a review of the literature on the emergence of the industrial food system, as well as the resultant impacts on food knowledge and skills. In addition to reviewing this literature, this chapter offers a holistic context in which one can better understand the general state of food knowledge and skills among the Canadian population. Chapter Three examines the research methods utilized and details on data analysis. Chapter Four discusses Question 1 and Question 2 (explained in 1.2), focusing on the reasons that food education for children is seen as important to respondents. Chapter Five highlights Question 3 and Question 4 (also in 1.2), focusing on the opportunities that exist for teachers to assist their students in becoming food citizens, as well as whether or not the curriculum, as it currently exists, supports the meaningful inclusion of food and agriculture topics in elementary school classrooms. Chapter Six includes a summary of the research findings, as well as the contributions that this research makes to the literature on sustainable food systems, and opportunities for future research.

CHAPTER TWO:
CONTEXT AND LITERATURE REVIEW

> "While critics of our position would argue that it is more than just the food system that is organized around capital, we would argue that there are few other systems that touch people's lives in such an intimate fashion on a daily basis, and thereby provide such a strong motivation and opportunity for citizenship" (Welsh and MacRae, 1998, 6).

2.1 Our relationship with nature

In order to gain some context for the basis and level of concern which drives this investigation around childrens' food literacy, it is useful to take stock of the systemic character of the problem of humanity's relationship with nature, which I see at the root of this kind of work. In order to begin to understand our relationship with nature and how this manifests itself in our contemporary food-relations in industrial society, it must be noted that the nature-society dichotomy has been "ingrained in Western thought since the Enlightenment" (Castree, 2001, 5). For centuries, people have struggled to define nature: a process that is often seen as arduous and confusing given that the very idea of nature is a human construction and "the way we describe and understand that world is so entangled with our own values and assumptions that the two can never be fully separated" (Cronon, 1996, 25). This is especially apparent given that the current state of the environment is directly connected to issues of development, population, over-consumption, and pollution (Merchant, 2004, 4). However these connections are not always made explicit.

Cronon states that "the natural world is far more dynamic, far more changeable, and far more entangled with human history than popular beliefs about 'the balance of nature' have typically acknowledged" (1996, 25). He problematizes the assumption that nature is "a stable, holistic, homeostatic community capable of preserving its natural balance more or less

indefinitely if only humans can avoid 'disturbing' it" (Ibid). This fits with the increasingly accepted belief that human beings have been influencing ecosystems since time immemorial, and implies that referring to a utopian state of nature as the measure against which all impacts are either legitimate or illegitimate, is not an acceptable practice. He argues that all human activity, as well as our perceptions of ourselves and the natural world "exists in a context that is historically, geographically, and culturally particular, and cannot be understood apart from that context" (1996, 35). Therein lies the danger associated with many environmental beliefs; they are founded on a "naive realism" that assumes we have the ability to "recognize nature when we see it and thereby make uncomplicated choices between natural things, which are good, and unnatural things, which are bad" (1996, 25-26). Merchant attempts to avoid these binaries by deconstructing the Edenic myth,

> [p]ushed to one extreme, the recovered Eden would be a completely reinvented, totally managed, artificially constructed planet in which shopping on the web would replace shopping at the mall, the gated community the urban jungle, and greenhouse farms the vicissitudes of nature's droughts and storms. Pushed to the opposite extreme, the recovery of wilderness implies a humanly depauperate earth. The tensions between the two plots create the need for a new story that entails a sustainable partnership with nature. (Merchant, 2004, 4).

Castree and Braun's work on human beings and nature illustrates that geography is one of the few disciplines committed to illuminating this relationship. However, they identify the ecocentric and social approaches often associated with critical geographers as being "intellectually limited and politically biased" (2001, 3) as the knowledge generated from these approaches are intrinsically geared toward "ameliorating environmental problems without ever addressing the deeper causes responsible for those problems in the first place" (Ibid).

The approach that Castree and Braun call for is *social nature*, and it is utilized by critical human geographers that view nature as, "inescapably social" (2001, 3). It argues that nature is a

fluid concept often augmented or reconstituted by different actors and to serve specific interests. Social nature considers two principles to be axiomatic: the first, that nature has never been asocial; and the second, that the perpetuation of nature as "nonsocial and unchanging, can lead not only to confusion but also the perpetuation of power and inequality in the wider world" (2001, 3). Castree and Braun argue that nature is social in a variety of ways, including:

- *Knowing nature:* There can be no objective 'knowledge' of nature, only constructed knowledges (2001, 10).
- *Engaging nature:* The myth of nature as nonsocial has resulted in the rhetoric of societies 'impacting' or 'destroying' nature despite the fact that "physical opportunities and constraints nature presents societies with can only be defined *relative to* specific sets of economic, cultural, and technical relations and capacities" (2001, 13).
- *Remaking nature:* for over a quarter of a century, geographers argued that capitalism was 'producing' and 'reproducing' nature in the name of profitability which implies that societies "*physically reconstitute* nature, both intentionally and unintentionally" (2001, 15).

When considering society's relationship with nature, the role of science and the mechanistic worldview arising at the same time, mark this transitionary period in human history. It is often credited with giving humans the opportunity "to dominate nature" and promote "the separation of human from nature" (Merchant, 2004, 5). Castree and Braun expand on this by explaining that, "science does not merely study the world but intervenes in it, physically and practically. Scientists, both in the laboratory and the field, increasingly create 'artefactual natures,' ones that are purposefully engineered- even down to the genetic level" (2001, 15). There is no better example of this than the emergence of the industrial agricultural system, in fact "[t]he human-nature divide was a necessary condition for the accumulation of the existing form

of food capitalism. People needed to become distant consumers of food instead of proximate producers living in balance with nature for the current system to have taken root and flourished" (Blay-Palmer and Donald, 2008, 7). Vileisis notes that "it's not surprising that concern about the 'naturalness' of food first emerged when the food system began to industrialize" (2008, 9).

2.2 The Emergence of the Industrial Food System

In 1913, there was no way of comprehending that the "Haber-Bosch method for synthesizing massive amounts of ammonia [would transform] the world" by introducing chemical fertilizers (Heintzman and Solomon, 2004, 4). The result of such understandings of the world and how we live in it via scientific discovery, and its employment in a growth-focused system of capital accumulation has had far-reaching consequences today with respect to how agriculture fits into and shapes society and how we organize our social world. For example, we see the palpable loss of our vibrant rural communities as small-scale producers are replaced by larger production facilities. This runs counter to the principles that have, for the most part, guided farming for the last 10 000 years. Laidlaw explains that,

> ...[t]hrough almost all of its 10, 000-year history farming was, by definition, renewable. Wherever agriculture began around the world- grain in the Middle East, rice in China and India, corn in Central America, and potatoes in the Andes- it marked an end to the hunter-gatherer life that preceded it. Rather than waiting to see what nature offered, early farmers saved seeds for replanting. Each year's harvest, then, provided not only food for the rest of the year, but also seed for the following year. Manure from domestic animals fertilized the land. No other industry has matched this level of sustainability, and saving seeds remained the foundation of farming until just the last few generations (Laidlaw 2004, 14-15).

The industrial food system has been the dominant model in agricultural production in the North or industrialized countries since the 1940's when off-farm inputs were first introduced en

masse to farmers. Perhaps the most visible example of this was the replacement of horses by tractors, which introduced the need for fuel for operation. As Friedmann explains, farmers were locked onto a "technical treadmill" as they "increased productivity and scale through technologies bought from key vehicle and chemical industries" (1993, 34). Laidlaw explains that fewer animals on the farm resulted in less manure for fertilizer, and so the purchase of nitrogen became necessary, and with that came the introduction of many pesticides and herbicides (2004, 16). This reliance on the 'technical treadmill' was a form of deskilling as farmers could no longer rely on their knowledge and skill. Friedmann describes this overall shift, saying that

> Surpluses mounted more persistently with the technological developments involved in the industrialization of agriculture. Industrialization subordinated farms to emerging agro-food corporations, both as buyers of machines, chemicals, and animal feeds, and as sellers of raw materials to food manufacturing industries or livestock operations. Profits in the agro-food sector depended on the larger restructuring of the postwar economy towards mass production and mass consumption, especially increased consumption of animal products and high value-added manufactured foods, or what might be called 'durable foods' (1993, 33-34)

Off the farm, increasing urbanization led to a "severance" which created distance between people and the food that they eat (Blay-Palmer and Donald, 2008). In fact, the city arguably became "the definitive physical manifestation of human control over nature" (Blay-Palmer and Donald, 2008, 9). The rise of industrialized food systems therefore, "reflects people's separation from nature and their desire to control the natural environment" (Ibid).

Today, conventional farming is generally characterized by heavily industrialized, large scale, "thoroughly commercialized, capital-intensive and highly specialized form[s] of production, involving the commodification of agricultural inputs supplied and controlled by agri-food corporations" (Scrinis, 2007, 113). This industrial agricultural complex and the reductive economic rationalism at the core of the notions of progress that steer it, has resulted in the

"globalization of the production, trade and marketing of food and agricultural products" (Clapp, 2008, 282). Today, the majority of the North American food supply is "produced or controlled by a relative handful of transnational firms" (Jaffe and Gertler, 2006, 144). This has resulted in a number of noteworthy changes, including: the diminishing role of the state as overseer; transnational corporations becoming the main actors who have "increased their concentration as well as control along all stages of the global food production chain" (including farmers) (Clapp, 2008, 282-283); and the increased presence of organizations such as the Food and Agriculture Organization (FAO) and the World Bank (Scrinis, 2007, 117). Transnational strategies for maintaining control over the global food system include intensive lobbying, exertion of structural power, and attempting to frame and shape the discourse in public debates (such as influencing public opinion on genetic modification) (Clapp, 2008, 283-284).

2.3 The Deskilling of the Population

While farming was becoming increasingly industrialized, and farmers in the process were becoming *deskilled* and separated from their land, food processing and manufacturing sectors were also experiencing this process, described by Harry Braverman (1974) as concerning,

> ...the influence of technological, rationalised systems of production on the collective craft identity and the well-being and happiness of workers. Braverman argues that within rationalised, industrial systems, the worker performs only a simplified part of a complete task. He or she is divorced from the complete process, the conception and execution of that task. Braverman argues that this fragmented work leaves the worker deskilled, degraded and dissatisfied. The industrial deskilling process, he goes on to say, is self-perpetuating in that deskilled workers require ever more simplified and rationalised work (Short, 2003, 14).

By incorporating this Taylorized management method, "every dimension of work [was] reorganized to be more efficient, predictable and calculable" to the owners of production (Jaffe

and Gertler, 2006 144). The result was an impersonal, abstracted labour process as new technologies and Fordism prevented workers from learning the entire production process. By manipulating workers and the labour processes in this way, it guaranteed that management maintained greater control and power over workers, who were seen as 'replaceable' and 'unskilled' (Jaffe and Gertler, 2006, 145). While the changing landscape of industrial agriculture had serious implications for farmers and factory workers, there were consequences "for dinner tables, too, as hundreds of new additives and pesticide residues became routine parts of the [North] American diet unbeknownst to those doing the cooking and eating" (Vileisis, 2008, 8).

One criticism of Braverman's work is "that he does not comment on what happens in an industrialised society, to the skills, satisfactions and identifications of people working in the domestic environment" (Short, 2003, 14). However, scholars have since attempted to 'fill in' the missing pieces of his theory by including the impact of deskilling on consumers. In the domestic sphere, knowledge of food "had evolved from being a matter governed by an individual's senses, common sense, and tradition, to one governed by outside experts representing an alliance of commerce, science, and government" (Vileisis, 2008, 185). This resulted in a new reliance on the products and services offered by capitalist industries. Additionally, with the introduction of waged labour, there came new opportunities for the industry to "cash in" on working families, who now had less time than ever to devote to food preparation or shopping, and would therefore welcome any sort of assistance in the kitchen.

The desire for the movement of capital for profit, meant that the industry "colonize[d] existing non-capitalist spheres of production" (i.e.: with canned soup and cereal), further commodifying every aspect of a person's life through the increased inclusion of food products

into the orbit of money and economic transactions. Through this movement, household labour activities and processes were being socially reconstructed. Labour processes in the public sphere were continually deemed 'production', while "food procurement and preparation activities [were shifted] into the capitalist sphere" which resulted in these labour processes being considered consumption (Jaffe and Gertler, 2006, 148). This move (reflective of the patriarchal ideology at this time) was encouraged and supported by industries, who could now dictate consumptions habits (Jaffe and Gertler, 2006) to women for their families. For the first time self-identity and place-identity were "woven through webs of consumption", and food which traditionally came from 'Mom's Kitchen' began to come from 'nowhere'[2] (Bell and Valentine, 1997, 3) despite the fact that "food and place are intertwined in robust ways in the geographic imagination and central to our lifeworld" (Feagan, 2007, 23).

The result of the above mentioned changes, are deskilled consumers, who are best defined as those who

> do not have- and are systematically deprived of- the information, knowledge, and analytical frameworks needed to make informed decisions that reflect their own 'fully costed' interests" and that "without deliberate steps to counter this process, consumers become progressively less 'skilled' in absolute and relative terms, as they become increasingly distanced (in time and space and experience) from the sites and processes of production (Jaffe and Gertler, 2006, 143).

The manifestation of a deskilled population is evident as many people no longer know how to preserve food, create traditional dishes, or how to make a meal from scratch. Scrinis

---

[2] Feagan discusses the disappearance of 'place' (specifically local) in modernist sociopolitical discourse in pursuit of the 'universal' and argues that many of the alternative food movements encourage the recreation of place (not always intentionally) while also "occurring as forms of resistance to the complex *de*territorialization paths of modernity, and the larger structural drivers which devalue the various meanings inscribed in our lived worlds – worlds *lived in place"* (Feagan, 2007, 30).

builds on these examples by including "a decline in home-based food production...the shift from unprocessed wholefoods and home-prepared meals to increasingly processed, prepared and convenience foods...an overall decline in the percentage of gross income spent on food...the loss of traditional and locally-distinct foods, cuisines and farming practices ...and a decline of cooking and food preparation skills" (2007, 121-122). Other examples include a decline in informed shopping, food storage and preservation, gaps in nutritional knowledge, and the social or environmental impacts of food consumption (Ibid).

While "the everyday task of feeding families had once depended on the substantial knowledge of the homemaker...more and more, this work depended on what might well be called an unspoken covenant of ignorance between shoppers and an increasingly powerful food industry" (Vileisis, 2008, 8), which made the task of manipulating desires and habits that much easier. For the sake of highlighting key examples of deskilling, some of those cited by Jaffe and Gertler (2006) have been formally categorized below, in addition to other examples:

- *Professionalized deskilling:*

The professionalization of nutrition has disarmed many eaters from understanding what constitutes a healthy diet and a healthy food system for that matter. This is because the food industry has managed to exploit this "reductive focus... through the marketing of their foods on the basis of the quantities of particular nutrients they contain, thereby obscuring the quality of the ingredients and the level of processing that a food product has been subjected to" (Scrinis, 2007, 120). Otherwise known as nutritionism (Pollan, 2008), this has led to dietary fads (e.g.: the no carbs diet), the creation of an ever-changing superficial hierarchy of nutrients, as well as a

population that do not have all the information necessary to make informed decisions. Welsh and MacRae also note, perhaps with a longer-term aspiration and critique in doing so, that,

> [i]n theory, businesses should desire a highly literate and skilled consuming public. According to market theory, consumers are presumed to be acting rationally[3] when they make purchases. Acting rationally means acting in their own self-interest with full awareness of how that self-interest is achieved. In order to act rationally, they need all the relevant information. Having all the relevant information allows the market to send clear signals to buyers and sellers." (1998, 13-14).

Professionalized deskilling is counter-intuitive to the age-old idea that moderation, variety and quality ensures a healthy, balanced diet. While Lyon *et al.* recommend caution when discussing a return to the 'Golden Age' of cooking (which may not have even existed in the way it is often perceived) they do remark that "there can be a measure of comparison with the recent past in a greater reliance then on fresh, unprocessed vegetables, meat and fish" (2003, 169). Professionalized deskilling pressures people to reconsider their own cultural knowledge and traditions and therefore, they often end up buying products "recommended" by nutritionists and dieticians as opposed to based on what has been traditionally considered a healthy or balanced food choice (Pollan, 2008). Guthman argues that these same issues exist even within alternative food movements, as consumers exercise 'conscious reflexivity' and therefore change consumption habits based on the *perceived* consequences of certain food choices, as opposed to actual experiential knowledge of what makes a food choice 'good' or 'bad' (2003, 47).

The food industry historically manipulated the maternal protection that a woman felt for her family as a homemaker, with advertisements claiming that traditional food knowledge could result in her family becoming ill due to unsanitary cooking processes (Jaffe and Gertler, 2006,

---

[3] So, acting *rationally*, depending on how it is defined or understood, could actually be argued to mean making decisions that are in the best interests of place, of tradition, cultural maintenance, etc. instead of the narrowly defined idea of economic rationality central to neo-classical economics.

150) or inadequate nutritional intake. This is also evident in the infant formula movement, which promoted the use of bottle-feeding. This movement also engaged the logic or language of emancipatory deskilling, which is described further below.

- *Emancipatory deskilling:*

In the early to mid 1900's, parents and grandparents required a more comprehensive set of food skills than are required today, as "[m]aking a meal from limited- and sometimes substandard- commodities, and making the best of the storage, preparation and cooking facilities available, were the everyday challenges that honed abilities in many households" (Lyon *et al.,* 2003, 170). Since the 1920's and 1930's there has been a steady attempt to show that 'industrial food' is both a positive and liberating force. Through the use of advertising, the industry attempted to convince both the nuclear and post-nuclear family that it was "an opportunity to break the bonds of female servitude to domestic chores. The critical position on this, states that this transformation of the family into a consuming unit was an opportunity for industry to resocialize women into capitalist femininity" (Jaffe and Gertler, 2006, 149). By creating the desire for convenience, 'modernity', and 'freedom' from food preparation, processed foods have become the assurance that a family can sit down and have a meal together without slaving away in the kitchen. This perception of 'freedom' also has implications for the traditions of celebrating and engaging with family over food, a practice which necessitates a certain level of interaction that is no longer required in order to eat.

- *Palette deskilling:*

The deskilling of a consumer's palette is the most covert form of deskilling as the consumer will not necessarily understand that her or his experiences with certain foods are often

'watered down' (Jaffe and Gertler, 2006, 154-155). There has been a great effort within the food industry to recreate ethnic dishes that have traditionally been *characterized* by strong and distinct flavours[4]. Because some of these tastes may appeal to a smaller segment of the market, the use of salts and sugars by industry, augment the tastes of these foods so as to appeal to a greater number of people- resulting in the homogenization of the palette (Scrinis, 2007, 121-122). This is a clear example of the industrial food system privileging and valuing capital accumulation over the intrinsic cultural value of that particular food, or supporting the consumer's meaningful interaction with it, and the people with whom these foodways are associated . Another consequence of deskilling the palette is the lack of taste-memory. Many people are unable to experience the range of tastes that a fruit or vegetable has to offer because they have not been exposed to the particular variations, and thus cannot choose food based on specific characteristics (Jaffe, and Gertler, 2006, 155; Scrinis, 2007, 121-122).

- *Standardized/homogenized deskilling:*

Most processed food are created "to fit the same logic of standardization that is displayed in fast food restaurants" (Jaffe and Gertler, 2006, 144). So long as the consumer follows the directions, they can expect "a consistent product that has been engineered to cook, bake, microwave, and taste exactly the same each time" (Ibid). Standardization went beyond just the taste of food, as Blay-Palmer notes that the period after WWII brought with it "a reverence for the modernity, cleanliness, hygiene and convenience" (2008, 25) that processed foods boast. In fact, "the creation of food standards paved the way for the post-WWII era shift to an emphasis on modern, sanitary food" (Ibid).

[4] This can include foods such as Italian, Chinese, Ethiopian, Indian, etc.

- *Forced deskilling:*

While arguably most deskilling has been somewhat 'imposed' (i.e.: through pervasive advertisements or through the emergence of food deserts), there are examples within Canada of deskilling that has been *imposed* on people. A tragic example is the forced deskilling of aboriginal and indigenous communities in Canada. Increased contamination of traditional foods (fish, caribou, etc.) and high PCB levels in breast milk has resulted in a forced loss of traditional food knowledge and arguably the "most fundamental aspect of consumer deskilling" -breast feeding (Jaffe and Gertler, 2006, 151). Food choices for the Inuit are integral to cultural tradition as "food can be [a] symbolic resource in the making of Inuit identity" (Searles, 2002, 69).

- *Generational deskilling:*

Emancipatory deskilling and forced deskilling, have given way to a ripple effect called generational deskilling. O'Sullivan et. al's research with elderly Canadian women highlighted how traditional handing down of food knowledge gives "a sense of continuity and security in knowing [their] children value traditions they have maintained and that the themes would continue to be repeated, again and again" (2008, 74). And due to the knowledge gaps that now exist in a family, parents and guardians find it increasingly difficult to teach their children how to cook, and to pass on their culinary wisdom.

After a thorough consideration of the various forms of deskilling, most of which are pervasive and systemic, it is more easily understood how a person can become dependent on industrial foods. It is for this reason that the following section specifically highlights the importance of food education.

2.4 The Importance of Food Education

There are believed to be long-term implications for any person who has been impacted by the industrial food system through the various forms of deskilling. Because "food production has traditionally been learned through apprenticeship, with children learning first-hand while their mothers cook..." (Jaffe and Gertler, 2006, 147), it is becoming less and less likely that children will learn from their family as more parents are working, and the numbers of 'self-care' children are on the rise (Lyon *et al.,* 2003, 171). Due to the forms of deskilling discussed previously, many parents may no longer possess the food knowledge necessary to provide an optimal food environment for their children because their own diet may be based on processed and pre-prepared foods (Short, 2003, 14). This has given the industrial food system guaranteed access to generations of people who do not have cooking skills sufficient enough to sustain themselves or their families (Lang, 2001) as "an absence of cooking skills means the consumer is solely reliant upon abstract knowledge and upon information on packets" (Caraher *et al.,* 1999, 603).

Blay-Palmer and Donald explain that "[c]onsumers are increasingly distanced from the physical, social and intellectual origins of their food by the cheap food system that privileges quantity and short-term efficiency over taste, sustenance, quality and the environment" (2008, 1). Wilkins builds on this by stating that a "population of passive food consumers – people who do not think about the food system and its sustainability – is...one of the chief goals of industrial food production [as well as] the dominant food industry" (2005, 270). While this may be true, some argue that "those who make it their business to share knowledge and to empower themselves and other people...represent a challenge to dominant development trajectories and to conservative doctrines of necessity and inevitability" (Jaffe and Gertler, 2006, 158). This is the

point in the literature where the role of education becomes visibly important. Caraher *et al.* (1999) explain that while the literature on food skills has to date, understood them to be an individualistic, lifestyle choice, or cultural pathway; acquiring these skills is actually heavily reliant on structural determinants, including educational policy.

For many cultures, learning to cook was a customary component of the domestic routine in a household. Whether cooking was a "distraction, game or chore", the process allowed for young people to develop these skills (Lyon *et al.,* 2003, 171). The small amount of literature that focuses on food skills in children supports Lyon et. al's argument that if children are to have the option of developing healthy food practice, they must be taught relevant food skills (2003). Furthermore, "...[t]here is little point in exhorting the public to change its dietary behaviour if it lacks the practical cooking skills needed to be able to execute the change" (Caraher *et al.,* 1999, 604).

A lack of skill and literacy is a critical issue for two reasons, the first of which demonstrates the need for children to possess food *skills*, the second of which demonstrates the need for children to possess food *knowledge*[5]:

- *Food Skills for Health Reasons:*

The diabetes and obesity epidemic currently plaguing North America has been linked to a diet based heavily on industrialized, processed foods. This "reliance upon pre-prepared foods

[5] Knowledge and skill, for the purpose of this thesis are seen as being separate but equally important. While skills tend to pertain to more practical, measurable behaviours, knowledge refers to the more theoretical or abstract dimensions to food education. It is worth considering whether one needs knowledge before skills, specifically with regards to food. Certainly one without the other limits the positive impact a person's food practice can have on their body, community and environment, but whether or not one is intrinsically privileged over the other is worth debating.

could mean an unwitting intake[6] of the very nutrients that health educators are most concerned about, such as fats and sugars" (Caraher *et al.,* 1999, 604). Because of obesity and the preventable diseases associated with it, the Canadian Commons Health Committee revealed in 2007 " ...that today's children will be the first generation for some time to have poorer health outcomes and a shorter life expectancy than their parents" (Merrifield, 2007). Obesity has now surpassed drinking and smoking in terms of its health impacts and costs (Ibid).

The Canadian Health Measures Survey shows that the fitness levels of children and youth have declined seriously since 1981, while the number of youth whose waist size places them at high risk for health problems have more than tripled. The percentage of boys aged between 15-19 categorized as overweight or obese increased from 14% to 31% between 1981-2009, while teenaged girls within the same age range increased from 14% to 25%. The strength and flexibility of boys and girls has also declined significantly (Tremblay *et al.*, Statistics Canada, 2010). This recent publication illuminates the disconnect between people and their personal well-being through the foods they consume and the activities they prioritize. So the industrial food system, in concert with the broader sets of values and institutionalized norms that have become entrenched in modern society, all work to create these health outcomes.

A child who understands the benefits of consuming whole foods -- or who at least becomes accustomed to the idea that there are alternatives, will be more able to protect her/ himself from the harm associated with consuming processed foods. In fact, if consumers have the knowledge and skills necessary to monitor their consumption of fats, sugar and salt, they will be

---

[6] My committee member, Dr. Robert Feagan raised an excellent point regarding this idea of an 'unwitting intake'. He explained that while to some degree it may be unwitting, it is important to consider two things: firstly, we are hardwired to want fatty, sweet foods which were more scarce in our ancestors time, and secondly, as people in industrialized societies these age-old inclinations to eat such foods serve no current purpose.

better equipped to consider eating advice and strengthen their understanding of ingredients (Lyon *et al.,* 2003 167). That child may also make a stronger advocate for healthy food systems, as they are not 'locked in' to a system that is inherently unhealthy due to a lack of cooking skills. Also, a lack of skill and knowledge means the eater is dependent on abstract knowledge which may leave an opportunity for industry to disarm a person through *professionalized deskilling*. When taught, cooking skills foster "not only the development of young people's health but also their social and emotional development" through an increase in confidence, self esteem, etc. (Caraher *et al.,* 1999, 606).

Most Canadian children are educated in constructed environments that constrain healthy eating through the promotion of what Winson has termed 'pseudo foods' (2007, 72). Winson's work on the school food environment, which he describes as increasingly "contested terrain" (2008, 501) illustrates the struggle that is occurring in schools,

> On the one side, community activists, parents, teachers and more recently provincial governments seek to remake them into sites for healthy eating. On the other side corporate food and beverage manufacturers and vendors fight to keep schools as lucrative markets while reinventing their product mix to provide ostensibly healthier options so as to retain a beachhead they have gained in the schools and expand their influence in the future (2008, 509).

Despite the recent victory announced by the Ontario Ministry of Education, which under the Health Food For Schools Act, will no longer sell candy, pop and fries on school property as of September 2011, there are still issues that need to be tackled through the educational curriculum (Lajoie, January 21, 2010). This is because pervasive food advertisements geared towards children exist in other environments in which children spend time (i.e.: the McDonalds located at the WalMart they frequent; advertisements on television and busses). This study argues that it is imperative that children are given the opportunity to develop both food skills in order

for them to be non-reliant on the plethora of pseudo foods made available to them, as well as a strong foundation of food knowledge to better understand and resist the pervasive advertising campaigns aimed directly at them.

- *Food Knowledge for Environmental/ Social/ Economic Reasons:*

A person who lacks knowledge of food systems may not have the ability to critically assess the current industrial system. The environmental, social and economic implications of this system can be revealed through educational practices, as the objective of advertisements and retail outlets is to support consumption, and not necessarily a greater knowledge of food. The strength of the dominant system is evident when considering its ability to sway food knowledge, with policy such as Health Canada's recent consideration which would allow processed foods fortified with vitamins and minerals to be marketed as 'healthy' (Health Canada, 2005). By gaining experiential knowledge of food, food preparation, appreciation of taste and quality, and increasing food literacy, one can more comprehensively and critically assess the range of products and services offered by the industrial food system. By considering that food education has the potential that children would grow up to be *food citizens*, determining the ways in which curriculum supports this is judged imperative.

The literature on food education in formal institutions recognizes the value of standardized teaching to ensure all students are given the opportunity to become food literate, though the literature calls for a sort of re-imagining of what teaching food skills can encompass. Specifically, it is argued that

> [w]hile it is appropriate to press for basic skill acquisition in schools to further the health agenda, it is important that this is directed towards creativity. This is not a distraction or an irrelevance; it is the link that will hold future practitioners to the craft in spite of, and in conjunction with, social and technological change. In a society where we do not have to

> acquire cooking skills in order to survive, and where we can easily convince ourselves that our health will not be affected by the menu we have in front of us, emphasizing creative possibilities is more important than ever (Lyon *et al.*, 2003, 174).

2.5 Rationale

The 'quality turn'[7] witnessed especially in European alternative food system practices is characterized by more ethical and sustainable production processes, often illustrated by the "conversion to organic and low external input farming practices, new premium quality food production, multi-functional farm enterprises, place-based production and marketing initiatives, new modes of food provision, such as short food supply chains (SCFCs) and farmers' markets" (Goodman, 2004, 4). While there has been notable discussion on the 'quality turn', there has not yet been a thorough discussion on the importance of skilled and knowledgeable eaters[8] as a part of this system. So, while the literature on this quality turn has been a positive documentation of alternative food movements, there have been 'missing guests' at the table: eaters. In fact, Goodman argues that "to *imagine* radical change in food production, systems of provision and the spatial scaling of everyday foodways without the agency of consumers is simply quixotic, given the formidable economic and spatial power concentrated in the hands of the leading food manufacturers and retailers" (2004, 13). Without acknowledging the importance of skilled and knowledgeable eaters, alternative food movements and their potential for change becomes questionable.

---

[7] While Goodman's 'quality turn' focuses more on the systemic reinvention, I refer to it in terms of what it means for personal power, that an individual's food practices can assist in the reinvention of a system that is more just and sustainable.

[8] I avoid using terminology like 'consumer' because I believe a person's consumption choices make up only a part of their identity, and do not necessarily reflect a person's beliefs or insight. Instead I use the term 'eater' when referring specifically to food choices, as this more adequately reflects the complexity of a person's food practice.

This gap that Goodman identifies is echoed throughout many of the studies on food. Since the literature does not thoroughly address the experiences of eaters whose food knowledge and skill is diminishing due to the increasing industrialization of our food systems, it is likely the case that there is even less information on the transmission of food knowledge and skill to *children*. This study addresses the gap that exists here by ensuring that explicit focus is placed on the experiences of elementary students, teachers and parents.

While there has been some study on rudimentary food skills in children (Lang, 1999 and 2001) they remain heavily based on quantitative data. This study will focus on food literacy, and in what ways the Ontario curriculum as it currently exists, lends support and resources to teachers, who can enable students to become *food citizens*. A study in the UK conducted by Caraher *et al.* explains that "[t]he first or primary source of learning about cooking skills was reported to be mothers; cooking classes in school were cited as the next most important by the majority of correspondents" (1999, 590). The increased presence of latch-key or 'self-care' children coupled with the steady decline of food-based study in school points to a serious gap in the transference of food skills and knowledge. As children can no longer be guaranteed access to informal food education at home, food education in schools has become more important than ever. Researchers like Knobloch believe that "interdisciplinary education is the key to engaging people to think deeply about the food and agricultural system and its role in the ecosystem" (2008, 530). Knobloch goes on to suggest that future research on agricultural education should "identify barriers and costs to integrating agriculture into the elementary curriculum and explain student achievement associated with the integration of agriculture in the elementary curriculum" (2008, 536).

Lautenschlager and Smith's work on community gardens and young people show that these initiatives "provide space for community interaction, decision-making, problem solving, creativity, and celebration, thereby fostering neighborhood ownership and civic pride" (2007, 246). Blay-Palmer uses the example of the Toronto urban farm[9] to espouse the benefits of community gardens in creating leadership opportunities for youth, and even encouraging positive interaction between groups that may otherwise have had territorial issues with one another (i.e.: gang behaviour) (2010, forthcoming). Additionally, this sort of experiential learning is seen to encourage "environmental awareness and appreciation" despite the fact that "exploration of nature is declining and being replaced by television and other sedentary activities" (Lautenschlager and Smith, 2007, 246).

Enabling young people to engage with nature in a time when people are likely more disconnected than ever from their physical environment, allows for not only a greater appreciation of food systems and the environment as a whole, but it fosters a generation of people who have a more holistic and symbiotic relationship with the natural world around them. This does not mean a return to what Cronon describes as a "naive realism" (1996, 25-26) that views nature as a homeostatic system, but rather, food and agricultural education allow for young people to understand the ways in which human beings live in, are a part of, and are reliant on nature, as well as giving them motivation to make the best possible food choices for both their bodies and their environment.

2.6 Gaps in the Literature

The review of the literature on children and food education has several identifiable gaps.

---

[9] For more information on the Toronto Urban Farm: <http://www.trca.on.ca/learn/near-urban-agriculture/toronto-urban-farm.dot>

The first, and most obvious gap is the lack of literature focused specifically on food education and children. There have been studies done that measure rudimentary food skills in children. There is, however, a serious lack of insight into the importance of educating children on food and agricultural topics. It is for this reason that this study will focus explicitly on food literacy in children.

The second issue is that the literature that discusses food knowledge and education is generally under the guise of 'consumer' education, and therefore placed in a neoliberal framing. According to Roff, enabling people based on their role as 'consumer' is inherently flawed, as "consumerism in no way guarantees the alternative sociologies, economies and agricultures espoused by contemporary food movements" (2007, 513). So, while there is value in a person making informed consumptive decisions, there is arguably even greater value in the informed 'citizen', working towards what Wilkins terms food citizenship: " the practice of engaging in food-related behaviors that support, rather than threaten, the development of a democratic, socially and economically just, and environmentally sustainable food system" (2005, 271). This study will focus on the ways in which food and agricultural topics in classrooms currently enable children to become food literate, and ultimately food citizens. This research also investigates how the contemporary curriculum facilitates these opportunities, and if it does not, how to prioritize this in the classroom.

The third issue is directly related to the first issue mentioned, which is that the limited literature on food skills and children has been strictly focused on basic food skills (i.e.: the ability to perform basic food preparation) and on rare occasions may include some basic nutritional knowledge. But to date, there remains a serious gap on the current state of agricultural knowledge in children, specifically in Ontario (and even Canada). Based on this finding, I

decided to focus on the status of 'food and agricultural knowledge and skill' and 'food and agricultural education'. These terms, which are used through out this document, are made up of the following concepts:

- *Agricultural literacy:* which is defined as "possessing knowledge and understanding of our food and fiber system" (Frick *et al.*, 1991, 52) while agriculture is defined broadly "as the food, agricultural and natural resources system, which includes topics such as agriculture; history, geography, and culture; science, technology, and environment; business and economics; and food, nutrition, and health" (Knobloch, 2008, 533). This definition includes a working knowledge of food systems (i.e.: from field to compost heap).
- *Kitchen literacy:* includes a basic ability to prepare culturally appropriate meals for oneself and one's family. While this is the most contested issue within the studies on food skills, as stated above, it will be recognized in my research information-collection methods, based on "respondent-reported confidence- rather than observed competence- with specific techniques and specific foods" (Lyon *et al.,* 2003, 168).

The terminology used in this research will also include the Region of Waterloo Public Health's working definition of 'food skill', which includes the following five components: Knowledge (e.g.: nutrition, label reading, food safety, food varieties, ingredient roles and substitutions, knowing food groups, cost comparison while shopping, knowing enough to keep household foods safe and properly stored); Planning (e.g.: organizing meals, food preparation on a budget, teaching food skills to children, efficiency in preparing meals, able to work in kitchen neatly, ability to cook with children present); Conceptualizing food (e.g.: creative thinking about leftovers, adjusting recipes, predicting the outcome if a step or ingredient is changed in the

process, using imagination/ having the confidence to make something without a recipe); Mechanical techniques (e.g.: preparing meals, chopping, mixing, cooking, following recipes or instructions); Food perception (e.g.: using your senses - texture, taste, when foods are cooked; judging when foods are cooked properly; achieving the taste & texture that was intended; choosing a spice that goes well with what's being prepared) (Vanderkooy, email communication, July 10th, 2009).

- *Health literacy:* will be based on the US Healthy People 2010's definition as "the capacity to obtain, interpret and understand basic health information and services and the competence to use such information and services to enhance health" (Kickbusch, 2001, 293). This definition encompasses an understanding of basic nutritional knowledge (i.e.: that carrots are a healthier food choice than a bag of chips).

Terms are used flexibly through out this research, as they draw upon various definitions and understanding of multiple literacy concepts. This is because these concept are recognized as being increasingly complex and personal.

2.7 Theoretical Framework

Within the current dominant food system, there are billions of people who do not have their basic needs met, farm workers remain marginalized and forced to work in unsafe conditions, and both eaters and producers are continually pressured by a food industry that operates within a cheap-food framework thereby "[r]elegating food solely to the whim of market forces [which] directly threatens democracy, putting profits ahead of the people who are involved in its production, distribution, and consumption" (Levkoe, 2006, 90). The theoretical framework for this study draws upon the literature on food justice, rights-based food system reform, food democracy and food citizenship, all of which are concepts that value informed and engaged

citizens. By drawing on these theories and concepts in the context of education, this study will illustrate the importance of recognizing formal education as being critical to any food concept and practices that require an engaged and informed citizenry.

Social and Food Justice:

The role that social justice plays in food studies is best explored by first understanding that social justice is defined as "an equitable distribution of fundamental resources and respect for human dignity and diversity, such that no minority group's life interests and struggles are undermined and that forms of political interaction enable all groups to voice their concerns for change" (Basok *et al.*, 2006, 267). The struggle for justice also "involves meeting basic human needs, freedom from exploitation and oppression, and access to opportunity and participation" (Allen *et al.,* 2003, 157). Allen *et al.* argue that identifying social justice issues "can redress inequality in the agrifood system" (2003, 157).

Social justice issues included in the classroom "can challenge standard ideological categories of inquiry and problem definition" (Allen *et al.,* 2003, 159). Social justice education involves not only understanding the history of injustices, but the causes of these injustices. This stems from the belief that "[o]nce students understand that social and ecological problems are the result of social choices, they will feel more empowered to participate in their resolution" and exercise their agency by making positive decisions (Allen *et al.,* 2003, 160). Bringing issues framed by social justice into the classroom therefore gives students an opportunity to be critically engaged with the world around them, something that is a necessary component in the next step towards food citizenship.

Within social justice movements, food justice movements act "as a valuable site for countering the identity of the person only as a consumer, and as a place for learning active democratic citizenship" (Levkoe, 2006, 90). This can be achieved in a number of ways, such as CSAs and local food projects though there is room here to include the role of educational initiatives (Allen *et al.,* 2003). Engaging in active, democratic citizenship requires the opportunities to develop the skills and resources that are necessary to care for, and support oneself, one's love ones, and community.

Rights-based Approaches:

While human rights have always played an integral role in food studies, "achieving important human rights have become conflated with other goals of food system reform over the past decade, such as being 'community-based,' local, and sustainable" (Anderson, 2008, 593). Despite this, "[f]ood security, health, decent livelihoods, gender equity, safe working conditions, cultural identity and participation in cultural life are basic human rights that can be achieved at least in part through the food system" (Ibid). The ultimate goal of rights-based approaches is

> that rights become embedded in everyday political and social expectations, so that the collective vision of how one should be treated and what one deserves, simply by being human, is transformed and steadily co-created to improve human potential for self-realization (Anderson, 2008, 594).

The case for a rights-based approach to food and agricultural education is strong, as this approach is said to "improv[e] human potential for self-realization" through becoming more food literate (Ibid). Food literacy means that a person is making informed decisions based on their own interests while possessing a good working knowledge of global interests. This is achieved "through education and full access to information about those choices" (Anderson, 2008, 601).

Food Democracy:

Building on the principles of food justice and rights-based food systems, "[a]t the core of food democracy is the idea that people can and should be actively participating in shaping the food system, rather than remaining passive spectators on the sidelines...food democracy is about citizens having the power to determine agro-food policies and practices locally, regionally, nationally, and globally" (Hassanein, 2003, 79). According to Anderson, citizens have this power "to make choices about how food is grown and consumed, based on open access to information" (2008, 596). In fact, "[t]he transition to a food democracy requires that people develop the knowledge and skills necessary to actively participate in society and to have an impact on different political levels" (Levkoe, 2006, 92). The role that education plays in fostering food democracy is crucial.

Food Citizenship:

While each of the previous concepts share much in common, the concept of food citizenship best incorporates each of the above mentioned concepts. For example, while rights-based food system reform is an important component of making positive change to our food system, using a concept like citizenship encourages the idea of citizens having both rights *and* responsibilities, as well as knowledge and capacity, which will ultimately lead to a more sustainable and just system. Welsh and MacRae see this advantage as well, explaining that,

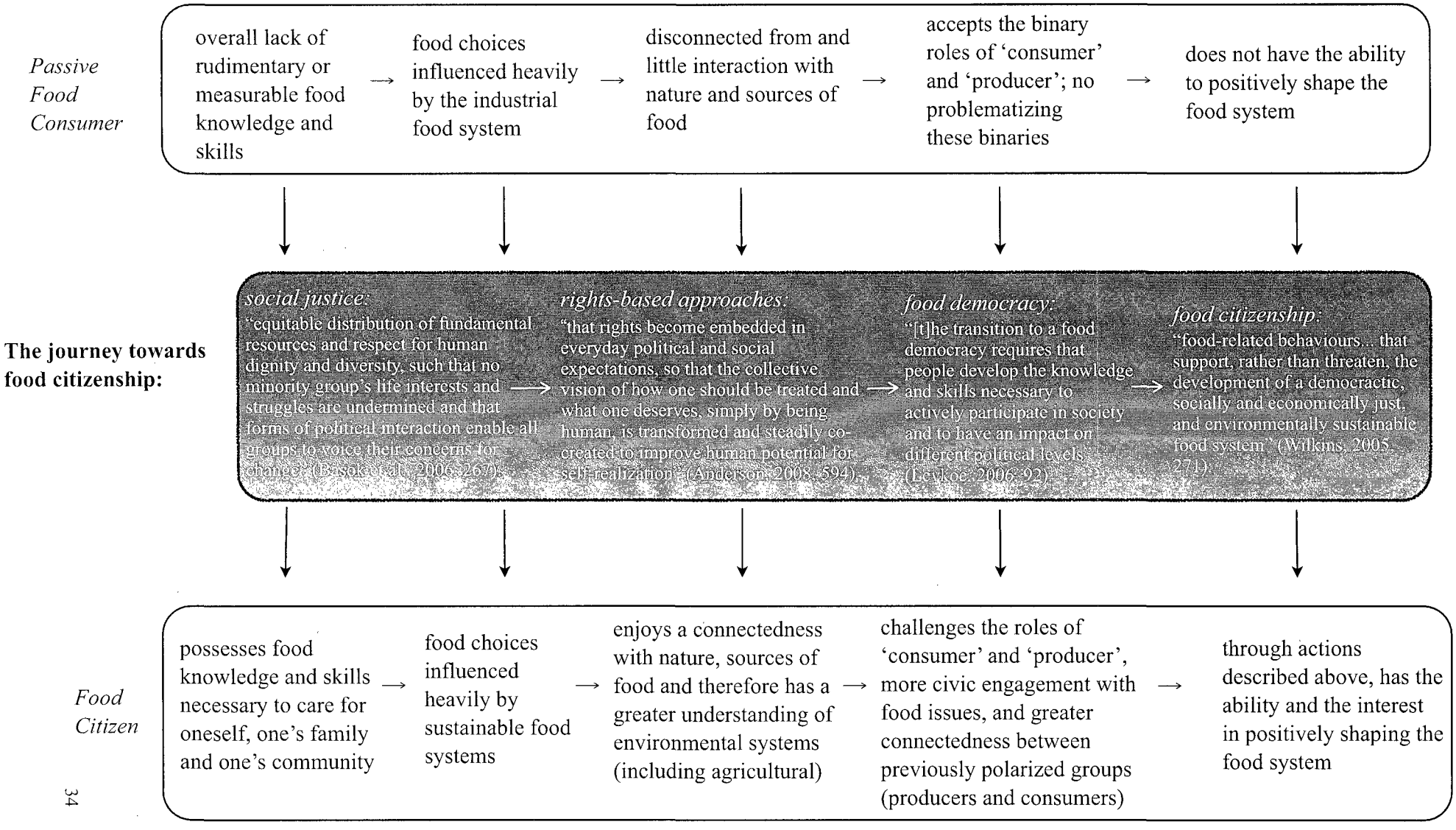
> The language of "citizen" implies some complex membership in a society, with both rights and responsibilities. Citizens have capacities (rights and responsibilities) beyond those of consuming goods and services. Similarly, society is more than simply a marketplace (1998, 7).

Wilkins states that "[f]ood citizenship ...is the practice of engaging in food-related behaviours...that support, rather than threaten, the development of a democratic, socially and

economically just, and environmentally sustainable food system" (2005, 271). So again, the idea of action and engagement, perhaps even a sense of duty, informs food citizens. Welsh and MacRae support this idea, explaining that food citizenship "emerges from people's active participation in shaping the food system, rather than by accepting the system as passive consumers" (1998, 3). Food citizenship "eschews the passive and confining roles of 'consumer' or 'producer' or 'worker'" (Hassanein, 2003, 85) and necessitates "that we move beyond the notions of food as a commodity and people as consumers", as people's interests are not so narrowly defined by their ability or inability to spend money (Welsh and MacRae, 1998, 5).

It is because of this 'complex membership' and the idea of teaching children to view themselves (young citizens) as having capacities that exist beyond the realm of the market, that the concept of food citizenship will be used as an ideal goal for the educational system. The following page contains a diagram that illustrates the spectrum that exists between the "passive food consumer" as described in the literature and the "food citizen", as well as the interconnectedness of issues and lenses through which this spectrum becomes illuminated.

Figure One: The Journey towards Food Citizenship



2.8 Aims and Objectives

As was discussed in section 1.2, the purpose of this study is to better understand the perceived importance of food education and some of the notable benefits. Additionally, this study investigates the role that food education initiatives play in the positive development of food citizenship and some of the barriers and opportunities to encouraging food citizenship in the classroom. Additionally, by using the elementary school classroom as a study site, this study ascertains whether the current curriculum recognizes that the meaningful inclusion of food and agricultural topics is an important component in the healthy development of a citizen. As a consequence, by acquiring a better understanding of the role that food education initiatives can play in this development, there can also be a better understanding of the need for supporting these initiatives, as the rapid rise in obesity and diabetes among children suggests is necessary. The objectives for this study include illuminating responses to the following questions from the participants in the study:

Question 1: Does food education for children matter?

Question 2: Are there positive impacts that food education has on children?

Question 3: What opportunities exist for teachers to enable students in becoming food citizens?

Question 4: In what ways, if any, does the provincial curriculum as it currently exists, lend support to teachers, who can then enable students to become food-literate?

CHAPTER THREE: RESEARCH APPROACH AND DESIGN

3.1 Overview

This research seeks to understand the perceived importance and benefits associated with food education for children, as well as to identify some of the major barriers and opportunities within classroom and curriculum that foster food citizenship. The following chapter discusses the rationale for designing this study, particularly data collection and analysis.

The academic literature served as an instigator in this work and its orientation, not simply to frame the work, but to locate ideas and concepts out of which a theme and set of questions were derived. The literature also assisted with the development of my questionnaire, as I used these concepts to ensure that the questions I asked participants would lead me to greater depth regarding the perceptions, attitudes, challenges and opportunities surrounding food and agricultural education, and food citizenship.

The literature also served as a resource when determining to whom I would focus my interviews. For example, Knobloch (2008) has produced invaluable research on the perceptions and attitudes of teachers towards agricultural topics in the American context. His findings formed the basis for this research valuing the perceived importance of food education to teachers in Ontario, and why it is or isn't prioritized in the classroom and curriculum.

Primary data collected through interviews aimed to document perceptions surrounding food-based education focused on children, as well as to highlight the benefits associated with these initiatives. This primary data was used to illuminate the major challenges and opportunities that exist for children to become food citizens, as well as the attitudes and insights of interview participants, as the importance of food education and the opportunities for food citizenship in Ontario elementary classrooms became evident.

In order to provide the context for the biases and orientation which set the tone for the research direction and interpretation of data for this work, the following section contains a brief description of my background and the ways it informs my research.

3.2 Researcher's Background

I am a Canadian woman in my mid-twenties. I was born in Mississauga, but moved to the village of Rockwood in southern Ontario with my mother and siblings when I was eight years old. Rockwood is known for its beautiful conservation area and my childhood was spent exploring the glacial potholes, mill ruins and forests of my neighbourhood. This instilled in me a great notion of responsibility to my environment from a young age. Both of my parents were born in Europe, my father in Waiblingen, Stuttgart (Germany) and my mother in Frosinone, Veroli (Italy). My father works for a marketing firm in Toronto and my mother works as a procurement clerk for the federal government.

Because my parents have had unique experiences as immigrants to a new country, they instilled in me a strong work ethic, and raised me to appreciate the fulfillment that comes from pushing oneself. As the oldest of four children, I also became intimately acquainted from a young age with the gender biases that exist in the domestic sphere, as it was assumed I would perform domestic duties while my brothers experienced a greater amount of freedom, in the form of less accountability and less responsibility for maintaining the household. I describe myself as feminist, as I believe wholeheartedly that women and men are intrinsically equal and that recognizing this will alleviate many of the problems in our world. Additionally, my parents hold fairly traditional beliefs around the ideas of a welfare state, and their perspectives are very much shaped by the fact that their parents became successful despite hardships and identify with the narratives that state that 'working hard' and 'refusing to give up' will result in personal 'success'.

Additionally, my German and Italian background means that I grew up with very strong food cultures, where it was common for my Nonna or Oma to prepare wonderful meals for our family whether it was a Baptism, Christmas, or we had just stopped by for a visit. In my life, food was never seen as a source of guilt, and calories were never discussed. To my family, food simply means 'love', as it is still seen by my grandparents and parents as being in the cultural 'peasant' tradition of offering all we have, however little, to the ones we love. This familiar comfort became more important to me, the older I became, and especially when I began university.

I received a Bachelor of Arts degree from the University of Guelph in International Development, specializing in Gender and Development. For much of my degree I focused on issues of water rights and ecological democracy, which led me to the world of food studies. Working in an independent bookstore exposed me to the mainstream-food movement criticisms emerging around this time (i.e.: The 100-mile Diet; The Omnivore's Dilemma) and I found myself fascinated by the way food could be a lens through which one could better understand the world.

I believe strongly in notions of citizenship and democracy, as people are not merely defined or understood or make contributions to the world by the purchasing decisions they make. Additionally, I find terms like 'consumer' counter-productive to social movements (especially food-based social movements) and prefer to discuss a person in their role as a citizen of their community and world. I believe that neoclassical market-based economic solutions to environmental and social problems will likely re-create the very system they sought to change in the first place. I believe that education and community- as difficult as it is to define these complex though deeply significant concepts- are of the utmost importance when creating social

change. I bring these values and perspectives to the work that I do, and know that these values impact the way I research, understand and interpret the information around me.

3.3 Research approach

Highlighting interviewees' personal attitudes, experiences, insights and approaches to food education and the Ontario school curriculum, was the intention of the data collection process. This study utilized a constructionist approach "which assumes that multiple views of reality exist and attempts to understand the social construction of reality from the view-point of the study participants" (Bisogni *et al.,* 2002, 129). Additionally, a grounded theory approach (Clifford and Valentine, 2003) was used to ensure that the findings in this study emerged in an iterative process and were analyzed from the perspective and insights of the interview participants while continually relating these findings to over-arching theoretical paradigms. This inductive approach ensures the research findings are generated 'from the ground up' (Clifford and Valentine, 2003).

By utilizing an interview based approach, data revealed itself in an organic, reflexive way. Interviews "can be used for a range of research, are reasonably informal or conversational in nature and are flexible in that they can be used in conjunction with a variety of other methods and theories" (Clifford and Valentine, 2003, 121). In addition to this, previous studies on agricultural topics in the classroom exposed what are considered to be limitations with the "positivist nature" of these studies, and are seen to limit "the depth of understanding of the teacher's beliefs" when data is based on responses to a questionnaire (Knobloch, 2008, 536). It is this documented limitation that prompted in-depth interviews with respondents.

The literature also notes several limitations surrounding the study of 'food skills' which have helped to frame the research questions. Firstly, the very idea of 'food skills' is highly subjective, as "current discourse about (the decline, revision, reskilling or deskilling of) domestic cooking offered little explanation about how for example, cooking with pre-prepared foods requires and utilises different or less skills than cooking with fresh, raw foods" (Short, 2003, 15). Therefore, when asked to discuss the importance of food skills in childrens' education, responses will be based on "respondent-reported confidence- rather than observed competence- with specific techniques and specific foods" (Lyon *et al.,* 2003, 168).

Second, it is important to consider that the discussion of food skills often brings with it the assumption "that there was a time when good cooking skills were more routinely practised- the Golden Age" (Lyon *et al.,* 2003, 168). This indicates there is great complexity and cultural significance around who carries the 'burden' of food wisdom. Additionally, Ellen Desjardins, explains that when discussing the idea of 'reskilling' it is important to consider that culturally, many men never were 'skilled' in matters pertaining to food, therefore terminology like 'reskilling' is highly gendered (personal correspondence, September 2009). Because a push for the return to this 'Golden Age' has implications for women, this research project avoids terminology like 'reskill' and instead shapes the research questions by valuing the process of 'skilling oneself', 'gaining knowledge', 'becoming literate' and ultimately, a food citizen[10]. Food education has the ability to shift the stigma and sense of burden that accompanied food skills in previous eras, so that the idea of food skill and preparation is re-worked to highlight the value

[10] Additionally, despite the fact that 'deskilling' is also a gendered term, for the sake of clarity and consistency it is used throughout this thesis as it is in the literature. However, by unpacking this term, it is made clear that I am aware of the limitation associated with this word.

present in those socially-constructed worlds and honours them in socially progressive and environmentally appropriate ways.

Lastly, Caraher *et al.* (1999) point out that often initiatives aimed at promoting greater food literacy are targeted specifically to certain populations, and can in turn 'ghettoise' the issue. Therefore this study did not focus direction specifically at populations typically seen to be 'at-risk', but attempts to comment on the overall status of food literacy in elementary school children in the Upper Grand District School Board (UGDSB) as they suggest all people can benefit from these initiatives (Ibid).

This project was created to address the lack of inquiry into the major challenges and opportunities that exist for teachers to include food-focused themes and topics in their classrooms, particularly in the Canadian context. Additionally, there is a lack of research focused on concepts like food citizenship in schools in Canada. This study focuses on Wellington County in the province of Ontario, which is a blend of urban and rural communities and has a strong agricultural culture, which may arguably be more easily situated to consciously address notions of food citizenship and education.

3.4 Boundaries, study site and justification

By focusing primarily on the region of Wellington County (including the city of Guelph), this study was conducted in areas whose total population reaches 200425 people. As is noted in the table below, Wellington County's population increases for both the total population and for people under 15 are close to that of the provincial average. This indicates that samples chosen from these regions might be reflective of overall trends within the province and might therefore be of greater relevance to the provincial government.

Table One: Population Characteristics of Wellington County and the province of Ontario

Indicators	Wellington County	Ontario
Total Population	200 425	12,160,282
% population change from 2001-2006	↑ by 7%	↑ by 6.6%
% of population under the age of 15	19.3%	18.2
population density/km square	75.4	13.4

Based on 2006 Census data (Statistics Canada)

Wellington County is comprised of seven townships, all of which are mostly rural. They are as follows: Centre Wellington, Erin, Guelph/Eramosa, Mapleton, Minto, Puslinch and Wellington North. While the city of Guelph is technically not a part of Wellington County, it is included in government census reports and will be considered part of Wellington county for this study. This is an excellent site for research, as it is comprised of areas that are rural, urban and peri-urban. The UGDSB supports 60 elementary schools within their district, many of which are located within Wellington County. Wellington County is also an area with a rich agricultural history, as well as post-secondary agricultural education opportunities at the University of Guelph through the Ontario Agricultural College.

3.5 Data Sources

3.5.1 Curriculum data

Since one of the main objectives of this study was to understand what 'space' exists within

the curriculum to include food and agricultural topics in the classroom, as well as to understand the way that these curriculum expectations lend themselves- if at all- to food citizenship, secondary data in the form of curriculum documents (from grades 1 through to 6) and curriculum resource support were analyzed in order to understand what the educational priorities of the Ministry of Education are. These documents are all available online at the Ministry of Education website. I reviewed the Ontario Curriculum for:

- *Social Studies* (1 to 6)- This document is about 90 pages and was revised in 2004
- *Science and Technology* (1 to 8)- This document is about 165 pages and was revised in 2007
- *Health and Physical Education* (1 to 6)- This document is about 210 pages and was revised in 2010

The curriculum expectations found within these documents were the focus of analysis in order to better understand both the perceived level of importance of these issues at the Ministerial level, and also to understand the opportunities that support food citizenship and barriers which constrain or impede it. Curriculum is designed to allow for creativity in classrooms, so the focus of these documents was not on the *approach* a teacher must take to cover a certain topic (i.e.: specific activities for a concept or topic) so much as it was focused on the *ideas* that a student is expected to have been exposed to, and understand. This analysis became increasingly important, as interview requests made to the Ministry of Education were not granted and therefore the curriculum had to 'speak for itself'.

3.5.2 Interviews

In order to better understand how to support and facilitate the meaningful inclusion of food and agricultural topics into formal classroom environments, key informant interviews were

conducted with educators, parents[11], people working on school boards, as well as people involved with relevant food-focused community organizations. Refer to Appendix A for a complete list of interview questions. There were 25 interviews conducted in total.

Table 2: Number and type of Participants

Type of Participant	Number of Participants
Teacher	10
Parent	5
School Board Employee	3
Community member/organization	7

Interviews were conducted from May to October of 2009. For the sake of convenience to respondents, most interviews were conducted over the telephone. This was seen as more convenient to respondents who didn't have to leave their home or place of employment, and it allowed for me to plan around their schedule more easily (i.e.: for one respondent, she wasn't available until after 9PM). Given that my research took place during the teachers' summer break from school however, this made it more difficult to find teachers to interview.

While initially I was aware of the resistance I might have received from teachers who perhaps had not given much thought to food and agricultural issues, all respondents were receptive to my research questions, which were designed so as not to privilege or reward a particular attitude towards food and agriculture. The questions were divided into various factors,

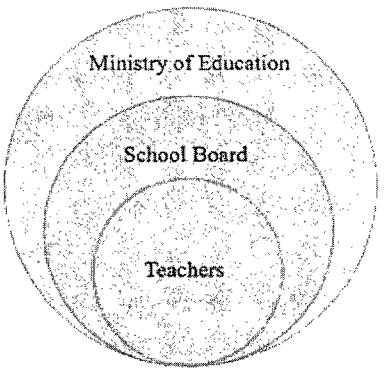
[11] It is worth noting that while 5 parents were interviewed exclusively based on their roles as parents, participants who fell into other categories (i.e.: teacher, nutritionist) were keen to share their experiences as parents as well, so that number is not wholly representative of how many 'parents' actually contributed to this research project.

in order to ensure that data considered the complexity of this topic (i.e.: context, school, curriculum, parents and student learning).

Teachers:

Interview questions for teachers were left purposely open-ended in order to encourage more dialogue and opportunity for reflection on their teaching experiences (i.e.: in what ways (if any) would elementary students benefit from being taught about food and agriculture?). By framing the questions in this way, no assumptions were made that these topics were discussed in classrooms, thus not alienating teachers, however it also gave teachers who brought these issues into classrooms an opportunity to share these experiences. The data obtained from interviews with teachers were used to better understand the major barriers and opportunities for including food and agricultural topics into classrooms. Figure One illustrates the various scales at which this research project aimed to understand the prioritization of food and agricultural topics in classrooms (i.e.: teachers' own attitudes and experiences with food and agriculture [individual], the school board [regional] and the Ministry of Education [provincial]).

Figure Two: Scales of Educational Institutions included in Research



School Board Employees:

School boards are responsible for administering the funding received from the province for the schools in their district. Specifically, school boards: supervise "the operation of schools and their teaching programs"; hire teachers and staff; "help teachers improve their teaching practice"; and approve textbooks and learning material as mandated by the Ministry of Education (Ministry of Education, 2010). Interviews were conducted with employees at the UGDSB to determine

whether or not food education was being prioritized at the Ministry level, which is the next educational scale.

Parents:

Interview questions for parents sought to determine whether or not food knowledge and skill was seen as a priority for their elementary aged children. This was an important to explore as it indicates whether parents are able to make connections between issues of health-related illness or environmental degradation, to an issue like an overall lack of food skill and knowledge. It is for this reason that questions were framed in a way that encouraged personal reflection (i.e.: is it important for you that your children are taught about food and agriculture? Does your child demonstrate an interest in food and/or agriculture at home?) and highlighted the kind of food practice that these families value. It must be stated however that interviews with parents cannot and were not intended to be representative, rather their insights were part of an exploratory attempt to begin to understand the critical issues facing educators and the challenges that exist to creating a more meaningful presence for food and agriculture in a curriculum.

Community Organizations/ Relevant Community Members:

Interview requests made to community members and organizations were chosen on the basis of their relevance to, and association with, the research questions. The following community members/organizations were interviewed:

- *Ontario Agri-Food Education (OAFE):* a registered charity focused on "building awareness and understanding of the importance of an agriculture and food system" through the use of "agriculture and food related learning materials and services for Ontario educators to enhance the learning experiences of students in Ontario classrooms" (OAFE, February 10 2010).

- *The Stop (specifically the Green Barn program):* The Stop Community Food Centre is an organization in Toronto that "strives to increase access to healthy food in a manner that maintains dignity, builds community and challenges inequality" (The Stop, 2010). The Green Barn is the Stop's newest project, "a 10, 000 square foot sustainable food production and education centre that engages people to grow, eat, learn about, celebrate and advocate for healthy, local food" (Green Barn, 2010). Most notably, the Green Barn facilitates a 'Sustainable Food Systems Education' program aimed at grades from JK to Grade 8.
- *FoodShare-* a Toronto-based social justice and food advocacy organization that uses co-operative buying systems, collective kitchens and community gardens to minimize household food insecurity while at the same time building the capacity of communities to address more systemic forms of inequality. FoodShare's work and ideas are applicable beyond their area of jurisdiction.
- *Learning for a Sustainable Future (LSF)-* "a not-for-profit, registered charitable organization that was established in 1991 to integrate sustainability education into Canada's education system. [Their] innovative programs and partnership are advancing, through education, the knowledge, skills, values and actions essential to responsible citizenship" (LSF, 2010).
- *Chef Instructors:*
  - *Chris Jess*[12]- the founding chef instructor of the Food School, a high school culinary arts program in Fergus, Ontario. Deeply inspired by the Slow Food Movement, as well as by chefs such as Alice Waters, Jamie Oliver and Paul Finkelstein, "the program strives to develop menus and actions that highlight how we are living in a time when it has become

[12] while my research focused on elementary aged students, I felt it necessary to highlight the success story of the Food School, as well as bring Jess's unique perspective to the table.

vitally important that we learn/relearn how to grow gardens, preserve our food, and reacquaint with what real food is" (Food School, 2010).

- *Alison Bell*[13]- the chef instructor at David Thompson Secondary School in Invermere, B.C. Bell teaches cooking courses (cook training) to high-school students as well as overseeing the Rocky Mountain Cafe, her classroom and the school's cafeteria. Bell also teaches courses on local and global food systems at the College of the Rockies.

Because these key-informants already had food and agriculture on the agenda, interview questions were aimed at better illuminating the relationships between food education and food citizenship (i.e.: is a basic understanding of food and agricultural systems an integral part of a child's education?) and the general importance of these concepts. Additionally, these key informants were asked to discuss whether or not the government is seen as prioritizing food issues (i.e.: do you believe formal educational institutions adequately address food and agricultural topics for students? Have you received any official support from government agencies or ministries?). These questions were framed in such a way that key-informants could draw on their wealth of insight and experience when contextualizing their responses.

It is worth noting at this juncture, that when building my interview questionnaire, my use of the word 'education' is a term that means different things to different people. For example, when used in the context of interviewing community organizations it is seen as referring broadly to learning, in various environments, and when it is used in the context of interviewing teachers or school board employees, it is seen as somewhat more formally referring to the learning that

[13] Even though Bell is based out of British Columbia, like Jess, her work is both timely and relevant to my research questions and her insights make an invaluable contribution to greater understanding of the importance of food education as well as some of the barriers and opportunities.

goes on in the classrooms of our schools. This is indicative of the various approaches and attitudes surrounding education, however my questionnaire was not designed to privilege one kind of focus over another.

3.6 Sampling Strategy and sample profile:

Finding teachers to request interviews with was initially facilitated through the snowballing process (Valentine, 1997). Through the assistance of an elementary school key informant, as well as a connection in the Upper Grand District School Board, interview participants were recommended, and were keen to recommend other potential participants. Because snowballing may arguably be considered a non-probability method of sampling, Clifford and Valentine state that the researcher "must therefore accept that statistically rigorous representativeness is not a primary issue in the research design" (2003, 232). While the purpose of this study is to highlight the attitudes toward, experiences with, and barriers and opportunities for food citizenship and education in classrooms, the data was not analyzed to determine the statistical significance of respondent reported findings. Rather, the goal of this study is to understand key themes and perspectives by highlighting the unique experiences of participants to illuminate ways the classroom can be better utilized to encourage food citizenship.

While interview participants were found through this snowballing method, the potential for bias exists only in the sense that the centralized location of the majority of the sample (Wellington County) may result in participants viewing food and agriculture in a similar way. Apart from sharing this characteristic, interview participants varied widely in terms of their backgrounds, perspectives, personal narratives and experiences. However, in consideration of future research projects, sampling from a wider variety of locations would guarantee a stronger representation of the overall province.

Interviews were conducted from May of 2009 until October of 2009, and all potential respondents were solicited either through email, which included an attached Information and Consent Form,[14] or by telephone. As previously mentioned, offering respondents the opportunity to complete the interview over the telephone appeared to provide a more convenient way for people to participate.

Interviews were conducted until the data became repetitive, resulting in 25 key informant interviews with teachers (10), parents (5), school board employees (3) and relevant community organizations (7). While I am confident that the interviews included a spectrum of stakeholders involved in the discussion on children and food education, the findings of this study can only provide insight into the perceptions and experiences of the sample population, based primarily in southern Ontario, and specifically Wellington County.

3.7 Analytic approach

The analysis of the results from interviews is broken down into two chapters in order to more adequately highlight the unique categories of findings. Chapter Four focuses on the perceived importance and notable benefits for elementary school aged children that are taught about food and agricultural issues. This sets up a context in which one can better understand why the educational system views food and agriculture the way that it does. Direct quotations are used in order to allow for reflection on the lived experiences of interview respondents, and to give a voice to the people working within the existing educational system. In order to discern common patterns or themes, after transcribing all interviews I read over them in great detail, noting any initial trends for particular questions.

[14] My research interview questions, as well as the information and consent form received permission from the Wilfrid Laurier University Ethics Review Board and are attached as Appendix A and B.

I began to build a list of 'key' themes, based on similar or complementary responses to questions (i.e.: a recognition of the loss of food skills and knowledge when asked if food education is important). While I created various thematic structures based on the frequency and depth with which they were mentioned in interviews, I ensured that I did not limit what may be an important finding, and based on my review of the literature, felt that certain issues (i.e.: subject fragmentation) should be included despite the fact that only a few respondents mentioned this issue.

Within these themes I included excerpts of all relevant interview responses and categorized them by interview group in case there were particular patterns within response groups (e.g.: whether teachers tended to exhibit a particular attitude towards the loss of food skill and knowledge). After analyzing the data, I decided not to organize findings by interview group (e.g.: teachers, parents, etc.) unless explicitly stated. This is because my analysis revealed that there were several important themes noted across the various interview groups and these were best illustrated by looking at respondents as a whole. In addition to this, I chose not to cluster findings in this way because several respondents that I interviewed for their particular experience (e.g.: in a community organization, or for their experiences as a teacher) also identified themselves as parents and wanted to share those parts of their insight as well. Common themes through out the interviews are presented as such, to qualify the validity of respondent-reported trends.

Chapter Five focuses on the barriers and opportunities that exist within classrooms to encourage food citizenship through food and agricultural education. These factors were highlighted, categorized and analyzed in order to better understand the conditions that school-based food educational initiatives exist within, as well as to identify the optimal context within

which to develop future educational food initiatives. Chapter Five additionally discusses the perceptions of whether or not curriculum encourages the inclusion of these topics which has been, until now, a large gap in the study of food education in the Canadian context.

CHAPTER FOUR:
THE ROLE OF FOOD EDUCATION IN THE HOLISTIC DEVELOPMENT OF CHILDREN

This chapter presents the results of the information collected as per the methodology outlined in the last chapter. There remains a lack of concrete understanding as how and why food education is seen as important, as well as the tangible benefits that these educational initiatives can have on children. In order to better understand how to support and facilitate the meaningful inclusion of food education initiatives into formal classroom environments, key informant interviews were conducted with educators, parents, people working on school boards, as well as people involved with relevant food-focused community organizations.

This chapter is based on respondent reported experiences, perceptions, and insights. Particularly, this chapter focuses on two of the questions outlined in Section 1.2. They are as follows:

- *Question 1:* Does food education for children matter?
- *Question 2:* Are there positive impacts that food education has on children?

When exploring Question One, the overwhelming response from participants included two components. The first is that the importance of educating children on food and agricultural topics should be an integral part of their education, and the second is the recognition that these skills have been 'lost', or are no longer guaranteed to be developed without intentional assistance. When discussing Question Two, respondents displayed a strong recognition of the importance of food and agricultural education, as well as the lack of focus these topics currently receive in the curriculum.

4.1 Question One: Why food skills and knowledge matter to respondents

According to both the literature on food education and the respondents who are actively involved in food education, the classroom has the potential to be a rich and inclusive environment for children to learn about these issues. One respondent describes her experiences teaching about food, stating that "food is a part of health, how we come together as communities, it's involved in our lives in so many ways that it's a fantastic teaching opportunity".

4.1.1 Valuing life skills

The relatively recent trend towards supporting academic career paths has many positive benefits for communities. However, as several teachers noted, there has been a cost associated with this cultural turn towards post-secondary education, including the loss of basic life skills. As one teacher noted,

> Since removing the vocational status of schools, academic or skill based schooling, there has been more of a uniting of the two streams into your basic school systems and I think that's been a really good thing because we've seen that academic streaming is only going to go so far, that the practical nature of skill based knowledge is just as important, if not more important now because we're pumping out so many brains without hands to work them. Our institutions should reflect our own wills and desires and concerns, and if we are concerned that we're losing these skills it makes sense to be doing this in schools.

Several respondents from different groups identified this skills deficit, including one teacher who described a cultural cost,

> We should be gearing more towards life skills because it gives people something to depend on, as opposed to just their education[15]. Lots of immigrant parents used to teach their children these skills, how to cook, how to can, but we don't teach that in the regular school system and that is a culture that's going to disappear. We need to bring it into the school system and make it vibrant and alive, so people value that stuff, and you know where your food is coming from, who prepared it, what nutrients are in it.

[15] I believe that what she meant here was that having a basic set of life skills to rely on gives them a resiliency regardless of the career paths they may choose.

One respondent working in the food community, echoes this belief that children learning about food and agricultural systems and processes is an integral part of learning their culture. She goes on to explain that,

> It's the whole social cycle. They can't learn about their culture if they don't learn about their food sources and production. And I think its important for kids to know about food banks, and be connected to that. For example, FoodShare in Toronto, to understand how food is grown, not just these quick farm tours and they think that's agriculture, but to visit some of the big greenhouses we have up in Leamington, to understand where our products come from, and the implications of it in our life, the cultural implications. I don't understand how food escapes that. Art has it, music, painting, some of the more esoteric forms of expression, all of that has an intrinsic value as part of our culture but somehow agriculture escapes that moniker and I don't understand that. I think it's absolutely an essential part of our culture, of living on this planet, and thats where I think we need to close the gap.

Several educators interviewed responded to the importance of food and agricultural knowledge by drawing on their own personal experiences and beliefs, thereby affirming that their own perceptions play a role in the way food and agriculture is brought into classrooms. For example, one teacher shares a personal reason for valuing food education in classrooms,

> I like the idea of growing local foods, my parents have their own garden, they're Italian, my grandparents have this massive garden, and I always take that for granted and now I'm at an age where I think that they're not going to be around forever and that's something I don't even know how to do, because I took it for granted. I'm a different generation than them, I'll go out and buy my food, as opposed to grow my own food and I started to think that that is something people are going to lose. Even learning how to make your own sauce, if you don't learn those skills from an older generation it'll be lost forever. So I started to think that maybe this is something that should be brought into the school, because maybe their parents are too busy working so they don't spend the time gardening or doing other things. I also think it has to be brought down from the Ministry because teachers won't do it unless it is mandated.

Kamla Ross McGregor is the Education Coordinator at the Stop's Green Barn in Toronto. Most notably, the Green Barn facilitates a 'Sustainable Food Systems Education' program aimed at grades from JK to Grade 8, which will be discussed in greater detail in Chapter Six. Ross

McGregor draws on her own personal experiences with food and why she perceives food and agricultural education as important,

> I grew up in Caracas, Venezuela. So a very, very big city. Bigger than any city in Canada, and I think the viewpoint from then and still, is that if you live in the city, you do what you do well and let the other people do their job, as in farmers make the food and you just buy it, and you eat it. But because my Mom and I grew up in that kind of sense, we didn't learn to cook for ourselves. I didn't realize how important that was until I left home, and I had to start fending for myself, and didn't know how to cook, and burned everything, and was embarrassed to make meals for other people. A lot of people didn't get this growing up and I think it's going to cost us more money in the long run because people don't know how to cook, or how to make something on your own. I don't think it's ever going to come to the point where I'm going to grow all my food for myself, but if we can find some kind of way of blending the two, living in an urban setting and taking part in the growing occasionally and learning about where it comes from.

Christine Callaghan is a dietitian at the Middlesex-London Health Unit and based on her experiences, she discusses the importance of an embedded educational plan that begins at an early age. She believes,

> it's really important that there is progressive, sequential learning that starts at an early age so children learn the importance of healthy eating, where food comes from, how it's grown, so that schools can build on those skills and they're transferable to home as well.

The recognition of skills needing to be transferrable to home environments and/or complemented by what goes on in the home was a theme mentioned consistently throughout interviews, pointing to a recognition of the shifting home environments that many children are finding to be disadvantageous.

4.1.2 Changing home environments

For latchkey[16] children, the hours after school are often spent independently caring for themselves, which can include preparing after school snacks or even dinner. Couple this with the

[16] A term used to describe children who come home after school to an empty house, as any caregivers are still at work.

processed food industry's range of unhealthy food products aimed at eliminating mess, perceived hassle and time from food preparation, and it becomes quite clear why so many Canadian children today are dealing with health-related illnesses such as obesity and diabetes. Respondents continually identified the need for food education in schools to ensure that children are learning food skills. Alison Bell explains that food education is necessary,

> because kids aren't learning how to cook, food skills are not being taught at home, I think even within my generation it wanes, I was raised when the convenience foods thing was happening, TV dinners and instant mashed potatoes, so our mothers[17], many of them, were turning over to that style of cooking, to release themselves from the drudgery of cooking every night, so I think that this generation is much worse off.

Pat Vanderkooy, a Public Health Nutritionist with the Region of Waterloo Public Health (RWPH), builds on this statement, explaining that,

> there is a lot that the school system could and should be supporting. We have essentially a deskilled population, even the hands on cooking skills need to be taught in school because we can't rely on the idea of those skills being passed on in the family home.

Several educators appeared to recognize the changing home environment for children today, including the likelihood of children being self-care or 'latch-key' children, as one teacher argues that,

> A lot of them aren't going to learn about it at home. And a lot of them are going to be making their own meals after school. It's like sex-ed, parents aren't going to teach it. And if I don't teach it, they won't learn it. Especially now with growing rates of obesity and stuff like that.

Stan Kozak is a Curriculum Specialist with Learning for a Sustainable Future (LSF), and based on his experiences as both an educator and a curriculum specialist, he illustrates that,

> If we look at learning in both the formal and informal system, the formal system is where every student gets some learning experience, so if it's not

[17] While I did not ask respondents their age, about one third of them indicated in one way or another that they grew up on the cusp of the 'culture of convenience', where attention to food was still somewhat present, but it was challenged by the emergence of processed, convenience foods.

> addressed there at some level, we're leaving it to a hit and miss kind of situation so I certainly think it's important.

When children are no longer guaranteed to develop food skills and knowledge at home, respondents involved in education argue that it therefore becomes the responsibility of educational institutions to address this gap or disconnection from food sources. However, this disconnection is seen in itself to be a noteworthy reason to educate children about food and agriculture, according to respondents.

4.1.3 The Disconnection from Food

Respondents from various groups commonly reported that education was a central force in combatting this disconnection that people today have from their food. Particularly, one respondent working in nutrition notes that,

> More and more we're disconnected from our food supply and there are all kinds of adults out there, some of whom are becoming more informed but I think there's a big segment of the population that are not informed about the source of their food and the dangers that are lurking in terms of the sustainability of our food supply. It's like anything, the earlier the better. If you start early, you're much more likely to be able to shape the future adult population and hopefully along the way, improve the odds of healthy choices at the same time.

The disconnection that many young people have from their food today is a serious issue, according to Colleen Smith, the Executive Director of Ontario Agri-Food Education (OAFE), a registered charity whose primary focus is on food and agricultural education. It is estimated that their educational resources reach about 2 million students in Ontario (OAFE, 2010). Their primary mission is to "[work] together to increase awareness of the agri-food industry by providing educational programs and resources" (OAFE, 2010). Smith explains that,

> Many kids grow up today thinking they can minimize food skill preparation, if they don't have those skills, if they can get everything they need out of a can, or Mom prepares it for them, they actually think that's OK and that they

> can do without that skill. So that allows them to remain once removed from the connection they actually have, which is the closest connection we have with anything on this planet: our source of nutrition.

Parents noticed a disconnection in the way in which food and agricultural topics are even discussed in class. One parent states that,

> There is information that sometimes comes home about what nutrition is, but I'm not sure about what extent to which they discuss it in the context of school. Nutrition is one thing, and they do these little environmental components here or there, but it's so disconnected, it's a missed opportunity. Some schools have community gardens, right on the grounds, I'd love to see some of that.

The reported disconnection from food is seen by parents to be contrary to what is 'natural', or what they remember their own childhood relationships with food and nature as entailing. This is a theme that will be touched on again, in Chapter six.

4.2 Question Two: The benefits of food education for children

It is not enough simply to understand whether food education is perceived as important among respondents, as the aim of this study is also to determine ways in which food and agricultural topics can be better and more meaningfully incorporated into classrooms. Therefore, this study asked respondents to discuss both the perceived importance of food education as well as some of the benefits attributed to food education. Respondents listed a number of benefits including: influencing purchasing decisions, positive eating practice, connectedness to community and world, increasing connectedness to nature, empowerment, recognition of farming as a career, and recognition of health-related illnesses. These are discussed in greater detail below, following by a summary of the Chapter findings.

4.2.1 Influencing Purchasing Decisions

While the literature addresses the impact that marketing has on children and their desire

for unhealthy food, respondents also identified an opportunity to positively impact students and actually influence their family's purchasing decisions. As Alison Bell explains,

> Kids are convincing their parents to purchase certain types of food that they want, and that to me, is a negative because they're being encouraged by this really aggressive marketing, but I think it can be a positive too because if kids come home from school and tell their parents about the cool thing they made at school, then it may engender discussion within the home about doing more cooking, or the kids can actually teach the parents skills they've learned in school. (Chef Instructor)

Respondents believe that this application of skill extends beyond the home, and one teacher explains,

> A lot of them are going to go home and when they go grocery shopping with their Mom or Dad, they're going to say "let's stick to the outside aisles, because its crap inside". I think they'd pass it on to their family, because they share what they learn.

So while the vulnerability of children makes them an easy target for the processed food industry, there is a growing recognition of the opportunity that exists when children come to value and understand healthy, whole foods the way that they may have previously valued unhealthy, processed foods.

4.2.2 Positive Eating Practice

On the whole, respondents associated a positive correlation between food education and better eating practice among children. As many pointed out, it is due to the likelihood of young people being responsible for at least one of their own meals per day, that these initiatives become of paramount importance. As one employee at the Upper Grand District School Board reported, the goals of food education include,

> How to be self sufficient, how to not be reliant on packaged foods, the difference between white bread and whole grains, how to be savvy with marketing campaigns, that sort of stuff.

Debbie Field is the Executive Director of FoodShare. She sees food education initiatives as being a key component to food systems moving in the right direction,

> There's a fully integrated complex food system that spends all of its time advertising processed, dead junk food and children are clearly the victim of this advertising so they're faced with almost like a wall of negative choices. For all of human history we didn't have enough salt, sugar, fat and were desperate for it, our bodies crave it, and literally now kids are like kids in a candy store, and it's all around them all the time. It's making them obese, its creating diabetes, its making them unable to see the value of sitting down gently with a group of people and eating, very few people eat together. So everything is moving in the wrong direction, from size and portion to the kind of food served in most fast food outlets, and so school programs are a key of stopping this. School based food programs help parents regain control over how their kids eat.

4.2.3 Connectedness to Community and World

Respondents reported that valuing food and agricultural systems in the classroom enables a certain opportunity for connectedness between the student and their community, and world. This is recognized by teachers, parents and people working in the food community. One teacher explains that,

> there are skills themselves but also learning about agriculture helps the kids to learn where their food comes from, from a global perspective, and if you can build farm to school connections, they see what is going on in their own communities, their own foodshed.

Some respondents even made the distinction between 'consumer' and 'citizen' descriptors, which are often used interchangeably, demonstrating that there is a certain level of recognition that there is a difference between the roles that a consumer or citizen has in food decisions and responsibilities. One elementary school teacher argues that,

> Being an empowered consumer would be one thing, but I think it would make them better citizens for their community as a whole, because they're not constantly taking from the land, they're actually giving back. So I think that makes them better people.

One parent interviewed discussed her own reasons for encouraging their children to interact with and understand their food sources, from both gardening and cooking perspectives. She explains that,

> from an ecological perspective it makes total sense to do that, but to me, as a parent, to teach a child to be engaged with the world, there's hardly anything more interesting to teach patience and to teach simple pleasures than to get a child to garden, to cook with you or understand what they're actually consuming. It's an amazing tool and an amazing pleasure to pass along to somebody else. It doesn't have to do with material consumption, really.

This respondent sees a distinction between material consumption and interaction with food, revealing that for some people, their relationship with food is seen as one that is embedded in a natural process, and that by choosing to interact with food in this way, the cycle of consumerism that food is so often confined to, can actually be interrupted and challenged.

A participant involved with the Green Barn program spoke to the perceived disconnection between urban and rural populations by stating that,

> Another [benefit] is understanding the world around them, their part in the world, where food comes from, how it's grown, the ecosystem perspective. I also think it's important, we work with a lot of kids who are from the city and it's really important for them to realize where their food comes from and how to grow food.

This idea of 'knowing' where food comes from is seen by respondents as an integral part of a person's worldview, and is commonly described as a 'connection' to nature. This can become a particularly contested issue given the perceived disconnection that people living in cities experience from their sources of food[18].

[18] Though this romanticizes the idea of a rural connectedness to nature, which does not necessarily exist, or at least not intrinsically just by living in a rural community.

4.2.4 Increasing the Connectedness to Nature

A sense of connectedness to nature, and the natural world was seen as both a positive benefit of food and agricultural education, as well as an integral component of a child's holistic development. However, respondents repeatedly revealed that there is a general lack of connectedness among students currently. As one teacher explains,

> They know at some level [food] doesn't just come from the grocery store, but I don't think they'd spend a lot of time thinking about where it came from. I believe kids know food comes out of the earth, but I don't think they spend a lot of time thinking about where that earth is, or what's being done to that earth.

Alison Bell explains that,

> We go out to a local farm, do some harvesting and do a dinner the next night. Lots of them have never picked a carrot. And I live in a rural community. There are only about 3000 people. So it is building skills but also helping to connect them to the land, it plants the seed of social conscience, about environment and community.

Building on this statement, Stan Kozak, drawing on his own experiences as an educator reveals that,

> In my time I can give you examples of kids who were 11, 12, 13 years old and had never touched soil. Ever. They had never touched soil, they didn't have a sense of growing anything. I had a pocket garden, as big as a door, and out of that garden we grew spinach, edible potted peas. The fact that we went through the process of turning the soil, pulling the weeds, planting the seeds, watching it grow and then eating it, is a rarity. That experiential learning, it's so important.

An employee at the Upper Grand District School Board sees many benefits to elementary school students that are educated about food and agriculture. Most notably, he states that,

> What benefits elementary students is that lifelong connection with food and nature, the effort and work it takes, the creation of wonder seeing food grow in front of your eyes, to see it pulled from the earth, to make that connection which leads to a consistent sense of curiosity. I think it also eliminates fear. I have seen in other cultures, food and food production directly connected to their lives, and I think to pull a carrot out of the ground or to slaughter an animal is a direct connection and we've become so abstracted, the world

> becomes gross and icky instead of recognizing the true biological reality that we live in.

An educator at the Stop's Green Barn explains that among many benefits to children,

> one of the benefits is just recognizing the ecosystem, that food is a plant and it comes from nature. To be thankful for food and appreciate the process. The realization that we're a species on the planet that relies on other species for survival.

Parents also recognized the connectedness to nature as a true benefit to their children, some encouraging this connectedness in their own interactions with their children. One respondent notes that when her family sits down together for a meal,

> I do get them to sit down and settle, and I do get them to pick apart what we're actually doing and they'll ask questions. My kids don't mind objectifying it [food] and talking about it, from a respect point of view, that this is coming from an incredible source to nurture you, but that it is important to understand that.

Another respondent reported that their daughter,

> had a ball growing her own vegetables. And that's really something that was important to her, because she could see the process. That just because you have planted the seeds doesn't mean they're going to grow tomorrow. And the work behind it. The watering, the taking care of it.

Another parent described his children,

> going to the garden to pull a carrot, they don't even wait to wash it sometimes. They're curious to find out how things actually grow. They want to go apple picking. There is something about that that my kids seem to like. They have a morbid curiosity about how our friends slaughter their pigs. They've had many conversations about the pigs and the personalities, and how hard it is to kill them, where the guts go, so they do have that, stimulated a bit by us. It's not a hard sell once you open the door. My son at one point for a few years, decided he'd be vegetarian because he didn't like the idea of killing animals. So they seem to have those connections. But it's not got anything to do with school. That's from our networks in town.

4.2.5 Empowerment

The result of empowering young people is a consistent theme throughout the interview responses, seen as both a process in itself as well as a benefit to people being educated about food and agriculture. Chris Jess shares his own experience with empowerment, stating that,

> I've got parents coming in to thank me, not because I'm doing anything, but because their kids are taking over in the kitchen, coming home empowered, they might not know everything, that's just not the way it goes but you're definitely going to have certain confidence and excitement and some foundations that will allow you to take over. Food is powerful, I learned that a long time ago, it does a lot of its own work.

This process of becoming empowered is seen by respondents from multiple groups as including both the abstract knowledge of nutritional information, as well as strengthening practical skill sets. One respondent who works in nutrition describes her experience as a parent,

> I have kids who are 10 and 12 now, and I see how they have been influenced by what is supposed to taste good. It's from a package, it's microwaveable, everything is about Easy-Mac, and so when I try to make something homemade they say "Oh that doesn't taste right", but that's because it isn't loaded with sodium. I think that there has been a shifting with our younger population and we need to address it in preschool, kindergarten and through out the school system both through educating them about the food system and about the power that's in their hands to make healthy choices. If they have the skills, to find and prepare and store foods, they can do it. Everyone's complaining about a time famine in the adult years, and then we pay this huge price economically to buy everything pre-prepared and I understand pressures on families. The best thing that we can do, is not to just educate, I think we need to help kids to learn that they can do things differently and that it's really great.

According to this respondent, the act of empowerment involves a rejection of some of the major food 'myths' that exist in our culture today, including the notions surrounding the real price of processed foods, as well as the impacts that processed food has on a person's palette. To other respondents, the benefits of empowering young people extends beyond the personal, and is actually a viable solution to the current food system crisis. Debbie Field describes this connectivity,

> It will literally change their life and make it more possible for them to eat well, but also to feel better about themselves personally and potentially create an even better educational system. Some people in the Slow Food movement globally are suggesting that by integrating food education and garden education into the basic food system we will heal the crisis not just of the food system but of the educational system, because kids who garden and cook at a young age are less bored and more active.

One educator says that based on her experiences "it builds confidence to know how to cook, and how to cook well. Some people find it therapeutic to cook, I think it makes people resilient".

4.2.6 Farming as Career

Several respondents noted that a lack of food and agricultural presence in classrooms leaves little opportunity for young people to consider a career in agriculture, or explore any interests they may have. One respondent, involved with the Stop Community Food Centre, feels that,

> Not every kid is going to be good at math and physics. Learning how to grow food, learning how to do something with your hands, I think will spark the interest of a lot of children who would otherwise not find something that they want to do.

This is echoed by elementary school teachers, one of whom expressed a similar sentiment,

> We always push kids through university, and we're like "You're going to be a doctor", but we don't value these other professions and I think farming is a very important profession.

Respondents who are involved directly in food and agricultural education also see linkages between education and pursuing food or agriculture as a career option. Chris Jess describes his particular experience,

> We've gone from a full 6 section contract position, which means I teach 3 classes a semester, 6 classes in total a year, which is about 150 students a year. We just got our numbers for next year and we've got close to 400 students so we've gone to having to hire another full time chef. I want to say that I was strategic about this, but it also happens that we live in a rural area and there's really been a lot of pride about the agriculture that's occurred here, and if I can get one kid to go into agricultural in a way that is

> sustainable, they create real food, if we can set those kinds of systems up, there becomes a real excitement behind this.

The 'excitement' that Jess describes can be seen as a source for radical change, and as a launching point for alternative food movements, with young people actively and critically engaged with the food systems upon which they rely.

4.2.7 Recognition of the Relationship between Food and Illness

There is an overwhelming recognition of the current health crisis impacting Canadian children, namely obesity and diabetes. Parents recognize that there are more opportunities than ever for children to be inactive and consume unhealthy food products. One respondent explains that,

> There is more and more around in terms of processed crap foods, convenience food that's not healthy and that whole convenience thing is driven by the time it takes to prepare healthy food, so from that point of view, there are more pressures to use that bad food. So in that sense it is important that kids learn to cook some basic meals.

Another parent demonstrated an awareness of this health crisis, stating that,

> With the question of diabetes and how we treat our bodies, it's important to me that my kids are healthy and that they're able to use their bodies powerfully.

Another respondent working in the food community, sees the importance of food and agricultural education from an economic standpoint, stating that,

> But now with the whole health crisis, if people really want to save money in the long run, you need to teach children how to take care of themselves. Because the parents didn't learn the lesson, and the children aren't going to learn the lesson either. I think somebody needs to calculate how much it's going to cost to teach kids, and how much it's going to cost to do open heart surgeries on a quarter of the population.

4.3 Summary Points

The overwhelming message from respondents considers food and agricultural education of the utmost importance for children, and views the classroom as a rich environment for children to be introduced to basic food and agricultural information. It is seen as important for a number of reasons, including:

- *Food and agricultural education values life skills-* with the praise of post secondary pursuits, there has been a marked loss in the transmission of basic life skills in classrooms, a problem which some respondents view as having both serious practical and cultural implications. Practical in the sense that young people are no longer guaranteed to learn basic skills necessary to care for themselves, and cultural in the sense that many of these life skills (i.e.: canning tomato sauce) rely heavily on cultural practices that are at risk of being lost. Respondents drew on their own personal experiences to inform their position on this issue, thereby suggesting that what makes its way into a classroom is often highly dependent on the educator's own comfort or interest in the topic.
- *Changing home environments make it more important than ever-* respondents acknowledged that the changing home environment means that food skills are not guaranteed to pass down to young people in the home. The responses also recognized that due to this change in home environments, it is up to the educational institutions to fill in the gaps.
- *Disconnection from food goes against what is seen as 'natural'-* respondents intrinsically valued a 'connectedness' to our sources of food and recognize that the current food system does not allow for this connection.

In order to better understand the perceptions surrounding food and agricultural education,

respondents were asked to discuss what they perceived as some of the tangible, measurable benefits of being educated on these issues. While responses varied greatly, they all focused on the positive changes that food citizenship encourages. Sifting through the information collected, I discern two dimensions: practical changes and societal-communal changes. These two dimensions are examined in this next section.

4.3.1 Practical changes encouraged

The practical changes that are encouraged through food and agricultural education, as identified by respondents, include the following examples:

- *Positively influencing purchasing decisions-* Children are seen as both vulnerable to the marketing of unhealthy food products due to perceptions of their being impressionable, while also seen as being major decision-makers when it comes to what food is brought into their homes. Respondents were quick to point out that this impressionability can be spun positively, if children are taught meaningfully about the benefits of consuming natural, whole foods then in their experiences, that is what will be brought home and consumed.
- *Positive eating practice-* The goals of food and agricultural education, according to respondents are ultimately to develop better eating practices by exhibiting a greater understanding over what range of food options exist, and what constitutes a healthy choice.
- *Farming as a desirable career-* The greater push for academic study has left little room in classrooms for students to develop a keen interest in food or agricultural pursuits. Several respondents noted this gap and believe that by including food and agricultural topics in classrooms in meaningful ways, this will be the first step to making a career in food or agriculture desirable to young people.

- *Recognition of health related illness-* Having an understanding and appreciation for food and agricultural issues is directly linked to minimizing the impacts of the health crises currently impacting Canada's young population. Respondents see direct linkages between education and healthier, more active populations.

4.3.2 Societal-Communal changes encouraged

Some of the examples of respondent-reported changes that food and agricultural education encourage, include a societal-communal component to them, and they are as follows:

- *Connectedness to community and world-* Apart from the nutritional benefits of learning about food, respondents remarked on the benefits associated with the greater ability to understand where food comes from, and the process involved in getting it onto their plates. Respondents describe a greater ability to understand one's own community, foodshed, and world as being key outcomes regarding good food and agricultural education. Respondents also described this connectedness as making young people better citizens, more patient people, etc.
- *Connectedness to nature-* Respondents were keen to share experiences about children that had never interacted with the natural food world, in both urban and rural populations. This is seen as extremely 'unnatural' and detrimental to their personal development. A deep and meaningful connection with nature is seen by many as an integral component of our culture and a person's happiness.
- *Empowerment-* Several respondents discussed the empowerment that occurs when young people are given the opportunity to develop food and agricultural skills and knowledge, resulting in a diminished reliance, or altogether rejection of the processed food industry.

Although each dimension is important on their own, when combined, these dimensions

can facilitate broader social change, lend themselves to movements such as food citizenship, and demonstrate that respondents grasp the complexity of the relationships between people and food.

The next chapter examines the barriers and opportunities that exist within current curriculum to support the inclusion of food and agricultural education, and encourage food citizenship. It does so by highlighting findings from key informant interviews, as well as through an analysis of curriculum documentation.

CHAPTER FIVE :
OPPORTUNITIES AND LIMITATIONS FOR FOOD EDUCATION WITHIN CURRICULUM

5.1 Perceptions of Curriculum

Until now, there has been little discussion in the literature on the opportunities that exist for teachers in the elementary school curriculum to educate students on food and agricultural issues, especially in the Canadian context. Chapter Four indicates that respondents see direct linkages between education and healthier, more informed food choices. Because it is seen as being imperative to a young person's healthy development, this chapter focuses specifically on some of the opportunities and challenges facing educators when attempting to bring food and agriculture into the classroom. While the Ministry of Education would have provided invaluable perspectives to this discussion, I was not granted permission for an interview despite over a dozen emails and phone calls. It is because of this that I undertook my own, independent assessment of the curriculum and opportunities therein. First, I performed a curriculum review and secondly I framed my research questions to encourage those who would have some knowledge of the rationale of the current curriculum to contribute to the discussion. I also engaged in a thorough discussion of whether or not the Ontario elementary school classroom is currently a site for food citizenship.

To begin however, the same study respondents were asked to comment on whether or not they believe curriculum as it currently exists is supportive of the inclusion of food and agricultural topics into classrooms. It must be expressly said here, that overwhelmingly the responses indicated that the support being generated through the curriculum is not seen as being adequate. This response was consistent across the breadth of respondents. While parents were

less familiar with details of curriculum content, they did feel they have a good grasp on what is being covered in their children's classroom based on what their children share at home. For example, when asked to comment on the inclusion of food and agriculture in his son's education, one parent explains,

> I don't think so no. I see no evidence of that. Apart from grade three geography where you learn that wheat is grown in Saskatchewan, old school stuff. It does depend on the teacher. I don't see anything, my kids don't bring anything home or talk about it, I don't think it's part of the curriculum really. I'm trying to be really fair to the school system, like "Oh there must be something!", but no. The only thing I can think of is that driving across Saskatchewan last year, my son said "This is where they grow all the wheat!"

One respondent involved in the development of food skills from a health perspective frames her response by focusing on the importance of consistency, explaining,

> Is the education system reaching out to kids and consistently giving our younger people at a population wide level, education that gives them good food skills? No. That doesn't mean that the interest or willingness isn't there.

Another respondent who works as a dietitian brings a national level of concern to this question, stating,

> I don't know the case in every province, but among dietitians, they are just as concerned in B.C. as they are in Ontario, how the heck are we supposed to have an impact if we can't get it into the formal curriculum? I would say definitely not.

Stan Kozak whose experience as a teacher and as a consultant with LSF[19] supports the concern over the issue of consistency, and builds on his point about the 'hit and miss'[20] nature of food education in classrooms across Ontario, when he argues,

> I don't think food and agriculture is well represented in Ontario's curriculum. You can find it in science, you can find it in the particular narrow health or nutrition view in the health and phys-ed document, but overall if you look at the big questions about sustainability and food, it's not

---

[19] discussed previously in 3.5.2

[20] discussed in 4.1.2

> well represented and has not been well represented. That doesn't mean you can't find opportunities to address those, but you have to bring those perspectives to it, and look for niches to offer those.

Another respondent working in education supports this statement, explaining that,

> One of the concerns I have is that even in our elementary system while we know that there are going to be teachers who have a real interest in food and hopefully also in local agriculture, the messages around that aren't going to be consistent, they aren't going to reach everyone. In our elementary schools, in grade 7 and 8, it used to be quite common that kids would be introduced to basic cooking skills, that has essentially fallen out of the schools entirely. Lots of elementary schools do not have facilities to help kids learn about food preparation.

Based on the above mentioned responses, there appears to be an overall perception of a lack of commitment as well as consistency, to what has been expressed in the respondents' school communities as being high-priority issues. Arguably, a lack of consistency may stem from curriculum developers being unaware of where the opportunities for inclusion exist, or a failure to consider the challenges associated with including yet another rich and complex topic in an already cramped curriculum. In order to begin to positively impact curriculum through the meaningful inclusion of these topics, the following section focuses on the perceived opportunities for food citizenship that exist within the classroom and curriculum.

5.2 Question Three: Opportunities for teachers to encourage food citizenship

Despite a sense of disappointment about the current educational opportunities for food literacy, respondents identified a number of tangible opportunities that exist for teachers who value the inclusion of food and agricultural topics. These opportunities will be discussed below in order to determine the potential they have for fostering food citizenship. These respondent-reported opportunities include: food and agriculture as a unique lens, flexibility within curriculum, and the home economics revival movement.

5.2.1 Food as a Unique Lens:

While 'food and agricultural topics' may seem an arbitrary term that lends itself to being injected in small doses across various disciplines, respondents reported a benefit to this fluidity, with one parent saying that,

> I think actually one of the great potentials of the food thing is it gets you into so many areas of study, everybody eats food. You can gain a much more nuanced understanding of food and food produced in our country.

Another parent went a step further, remarking that our food culture is an,

> opportunity for some clever curriculum innovators to really build some strong components around food. You can get into culture, immigration patterns, Francophone Canada and Anglophone Canada. It's such an accessible way to get kids thinking in different ways.

Perceiving food and agricultural topics as opportunities to draw on a broad range of subjects is seen as encouraging, not limiting, and this was characteristic across the respondent population. For example, one teacher reported that,

> I think there is lots of opportunity, most of our schools have children who stay for lunch. There is a lot of breadth within the curriculum, but there are certain topics which can overlay other topics within the curriculum, such as the environment.

In fact, many respondents went on to discuss the flexibility and freedom that exists within curriculum, and why this is so perfectly suited to the study of food and agriculture.

5.2.2 Freedom within Curriculum:

While the next section will discuss pressures that exist to cover all of the 'curriculum expectations', within those expectations there is a certain amount of creative control for teachers. In fact, it is this freedom that makes the issue of a teacher's comfort[21] with content so important

[21] Discussed previously in 5.3

in determining whether a topic is or can be meaningfully included in class or not. As Chris Jess explains,

> I don't have any restraints, as a teacher I am in control of the class and the curriculum I deliver. I reference the main curriculum bible... although it doesn't mainly outline agriculture and food, I have all the license in the world to make those connections. I am in control of my budget, I have farmers who come to the classroom with food, I show the movies I think are necessary in order for the class to be enriched. I think anyone you talk to, the field is really open, there's a lot of room for interpretation and a lot of excitement behind it as well. It really just comes down to someone wanting to do it, and doing it.

His experience with the freedom within curriculum has empowered him, as he explains he has "all the license in the world to make those connections", and while referring back to curriculum as a guide, he brings with it his own personal valuing of food and agricultural topics. Pat Vanderkooy supports Jess's description of his experience, discussing that,

> We see the teachers themselves incorporating pieces into the curriculum and when you look at the Ontario curriculum guidelines, there are bits of it in there, but we all know it's up to the teachers just how they interpret that exactly. We don't have an entirely prescribed curriculum in Ontario.

One respondent working at the Upper Grand District School Board echoes this based on her experiences, stating that,

> There are lots of opportunities in the curriculum. There are the big ideas that need to be taught, but there are different ways to go at teaching them. Partly might depend on a teacher's interest but also what resources they have.

Again, the flexibility and freedom that is said to exist within curriculum is seen as a huge opportunity for educators, however this makes the issue of comfort and familiarity with content an issue of paramount importance for teachers, a challenge discussed later in the Chapter.

5.2.3 Revival of Home Economics:

The loss of home economics (and family studies) in the Ontario school curriculum, was cited as a huge loss for those working in the food education environment. Kozak recalls this loss,

> So I don't think [the perceived importance of food education has] changed a lot, there's been a little more emphasis on the nutrition side of things, particularly within health, but there's actually been a decrease in the attention to food with the loss of family studies and home economics, at the grade 7 and 8 level at about 1997, around there, where those were pulled from the curriculum. So at that time we took a major hit in food preparation and food awareness across the province and we haven't come back since.

Another respondent agrees that the removal of home economics from curriculum was a "huge mistake", and believes that "certainly we need to have that at least in Grade 7 and 8, with the option of continuing on with it". This is despite the fact that home economics might have been a stream of courses that were traditionally gendered and 'domestically' based. Respondents feel the opportunity for change is evident. Chris Jess explains that,

> There is curriculum laid out from when we had home economics, which is now family studies, that could even be worked on again.

One respondent who now works at The Stop describes her own high school experience, revealing that,

> I remember home economics used to be a big part of the curriculum, and it's really too bad it's not now. I remember when we were growing up, there were kitchens in our school and we were always like "Why can't we use those rooms?" but they decided not to run those programs.

The imagery of unused facilities collecting dust while there is such a need for this skill and knowledge in the population is a sad commentary on the diminished state of food education in the Ontario curriculum. However, the existence of this infrastructure in some schools suggests that there is potential for the resurrection of these facilities, as well as the potential to use these spaces with a more progressive learning orientation that deals with the gender or class stigmas

previously associated with home economics courses. One parent remains hopeful when he says that,

> I think there's a consumer education component you can teach through food. That whole home economics component. It's not adequately covered, and it's kind of a lost opportunity that hopefully won't be ignored for much longer as questions around food seem to be becoming more and more prominent.

While the importance and place of food education to the Ministry of Education remains unclear to participants, based on their insights and experiences, there are apparentlymany opportunities within curriculum, even as it currently exists, to bring food and agricultural topics into the classroom. But does it allow enough flexibility and inclusion that teachers can potentially engage in the process of food citizenship? The Chapter concludes with a discussion of this important question. However, in order to fully understand the opportunities, attention must be paid to some of the perceived barriers and challenges surrounding food and agricultural education in elementary school classrooms.

5.3 Question Four: What is preventing food citizenship from being included?

There are several major challenges preventing food citizenship from being consistently and meaningfully taught to children in the context of Wellington County. According to respondents, these include: the pressure of curriculum expectations, curriculum priorities, comfort and interest in topics by teachers, lack of infrastructure, ambivalence of subjects, and 'subject fragmentation'.

5.3.1 The Pressure of Curriculum Expectations:

Teachers commonly reported time as being a major determining factor in how much

additional information and activity they can fit into their classes, regardless of priority or interest level. As one teacher reports,

> For a teacher to take the time, there are so many expectations for the entire year, for a teacher to fit them all in, to be asked to fit something additional in, if it's not in the curriculum, it's not going to happen. So you have to be able to make connections to curriculum, or edit curriculum. What's beautiful is when I find online that the Ministry of Health has put together a unit for me. And it's got 3-6 lessons and showing me where the expectations are.

Another respondent, who has only been teaching for a few months, describes her experience dealing with the time crunch, saying,

> When I was at a workshop for healthy, active living I remember thinking: when would I fit that in?

One respondent who is involved with food education in the health environment has had lots of experience developing resources for teachers to include nutritional information in their classrooms,

> Unless it is formally incorporated into the curriculum, in one of the sidebars on the page, here is the resource for this activity, you know it won't be used much.

Many community based organizations recognize this pressure on teachers, and have gone to great lengths to ensure any programs aimed specifically at food and agricultural education can be fit nicely into already existing curriculum expectation. Kamla Ross-McGregor who leads the Green Barn's educational programs[22] discusses her approach in greater detail, explaining,

> I have to make the best effort to make their participation easy for them, because this program is beyond what they need to do. So I'm challenged constantly by how to make it easy for the teachers, because they already have all this work to do and I don't want to be a burden, and this is really important and we all think the same way, so we try to offer our programs for free. This is privately funded. These are private donations that help our organization to run this, whereas it should be public. Why should just the schools that are part of the Green Barn get this? We only work with 7

[22] A more thorough discussion of their programs is discussed as a potential template in Ch. 6.

> schools right now, 12 classes and so many schools in Toronto want us, and we just can't do it.

5.3.2 Curriculum Priorities are Elsewhere:

Another major barrier identified by respondents is that curriculum priorities dictate much of what can be focused on for meaningful lengths of time in the classroom, and curriculum priorities encompass serious standards for literacy, numeracy, and more career oriented priorities. As Chris Callahan explains,

> I think other priorities can occur within a classroom in terms of numeracy and literacy, and nutrition is in there but how it's addressed might be a very small, small piece depending on other priorities.

A teacher adds to this, explaining that in her personal experience,

> competition is huge, we've got kids who are performing below standard on standardized tests, so the pressures are real, that they make sure they meet those curriculum goals.

In addition to this challenge surrounding priorities, several respondents discussed the recent trends in their experiences with curriculum, which include pressure for "more technology focused, to make it modern and relevant" or "relating curriculum to environmental issues". One teacher, when asked to comment on the perceived importance of food and agricultural topics explained that "[i]f you can pull curriculum to food and agriculture, good on you, but the topic of the day is the environment". These responses indicate a challenge associated with linking important food and agriculturally-based issues to stated curriculum priorities (such as 'environmental education'), which again suggests that a teacher's own personal understanding and comfort with food and agricultural topics may be a large determining factor for incorporating these issues into their classroom.

5.3.3 Teachers Uncomfortable or Uninterested in Content:

Respondents working in education recognize the dangers that exist when important skill sets and knowledge transmission being incorporated into classrooms are "largely luck of the draw". In fact, Jan Robertson of OAFE[23] demonstrates a thorough understanding of the disconnection between eaters and producers, explaining that,

> Individuals who are teaching at these schools, are they comfortable with the information that they have to teach because they're so far removed from that agro-food system? Perhaps we need to talk about it more, we like to say we're teaching the teachers, but they have to be comfortable with the topic they're sharing whether it is with little kids or graduate students or whomever. There is a disconnect there with the comfort level for the topic.

Robertson has identified a significant barrier to the inclusion of food and agriculture, and it is one that is echoed by several respondents working in education. An employee of the UGDSB reveals that,

> Ultimately I think it is desire, if you really want to get that message across you can find a way through curriculum. I think it is teacher specific, there are some who work with it every day, but some who would find it difficult.

It is worth noting that some respondents saw this freedom and fluidity with curriculum as a benefit, but it was also identified by respondents as a major barrier and challenge. This ultimately depends on the teacher's personal comfort and interest with the content. One respondent supports this belief, explaining that in her experience, "[i]t's pretty easy for a teacher to say 'You know what, I don't know that topic very well, I'm not comfortable with it, I'm not going to teach it'. So it's not just important that it be there. It's important that the support be there for teachers to present and to teach the curriculum".

The call for greater support for teachers was a common theme throughout the interviews, especially given that respondents appear to have an understanding of the disconnection between

[23] They were introduced in Chapter 3, and will be discussed again in Chapter 6.

people and the food they eat, and respondents recognize that teachers are not automatically an exception to this trend. An excellent example of this recognition comes from Chris Callahan whose focus is on nutrition education. She connects the dots, stating that,

> Nutrition education is not only important for students, but teachers teaching nutrition have to have some kind of regular workshops or information conveyed to them so that they're teaching the proper food guide, and not the American pyramid, and also so that they have access to resources, to keep them current so that nutrition can be something that is interesting.

Stan Kozak identifies an overall lack of systemic interest in food and agriculture among teachers.

> Teachers in the formal system are required and directed to implement school policy. Now is there interest? Sure, there's some interest out there. Is it systemic interest? No. Is it interest from the point of view, that I as an individual am bringing awareness? Sure, there are pockets. I could give you a case in point, in the school that I work at. I was teaching primary health and science, and in the literature I came across the idea that if you really want kids to eat well you don't just have to talk about it, you have to do it. So we have a program in town with the Guelph Community Health Centre, the Garden Fresh Box. So I brought the garden fresh box to the school, and it became a site where families could buy the box and school council ended up buying the box for each class and we would just eat raw veggies and fruit in class. So did I bring my interest and awareness to it as an individual? Yes. Is it happening elsewhere? Sure it is, but not systematically.

His experience highlights three important things. Firstly, when there is interest, teachers can find opportunities to bring food and agricultural awareness to their classroom environments. Secondly, it confirms that when that interest is not present, there are lost opportunities for engaging children in food-related behaviours and knowledge-development that would encourage food citizenship. Thirdly, Kozak's initiative illuminates the school as a community food hub[24] where people can 'do food', which in turn fosters healthier and more sustainable food practice,

---

[24] A community food hub is described as involving "a number of different elements... some social, some environmental and some commercial that work together to create a vibrant, robust and sustainable social enterprise. This is based on the idea that a hub is an intermediary which, by pooling together producers or consumers, adds value to the exchange of goods and promotes the development of a local supply chain. This added value may be gained through economies of scale, social value, educational work or other services" (Sustain, 2009, 5).

as well as a greater connectedness to community (both human and non-human). Therefore, it can be said that in order for positive change to truly occur in school environments, the interest of teachers must be raised, as they ultimately control the way curriculum expectations in their classroom are met. And additionally, when interest is present (as in Kozak's case) activities that exist outside the realm of curriculum can offer up lessons encouraged within the curriculum, in a way that encourages a sense of food citizenship.

5.3.4 General Barriers Cited:

While the above-mentioned challenges are based on strong patterns of response from participants, the following were also mentioned by participants and provide a unique perspective into issues that were not discussed as frequently, but are noteworthy nonetheless.

Infrastructure:

The lack of physical infrastructure is an issue that makes teaching food citizenship particularly challenging. Respondents discussed the importance of 'doing' food, and one educator reported that you cannot simply "talk about food in the classroom, you have to do it. Until schools are equipped with kitchens and somebody to facilitate that kind of hands on element, you can talk about it all you want but you're not going to learn anything about food." Basic kitchen facilities (i.e.: a fridge, stove, oven), cooking tools (i.e.: spoons, bowls, measuring cups, etc.) and actual ingredients are seen as being necessary when 'doing' food.

Ambivalence about Topics:

Jennifer Taylor spoke about the limitations associated with topics whose importance may be perceived with ambivalence. She explains that "there is a bit of ambivalence about some of these topics. Everything is important, bullying is important, sex-ed is important, nutrition in

Canada's food guide is important, so you get into the food system too and it's like 'we have the most varied food supply in the world' and 'aren't we lucky to be Canadian', and the whole idea of individual access to food and the fact that our farmers are going broke, is much more difficult."

Subject Fragmentation:

By the time students reach secondary school, there is often an array of courses offered, some of which may focus on developing food skills or agricultural knowledge. Technically, these courses are in school curriculum, however they are generally only taken by a small fraction of students. Stan Kozak problematizes this, saying that "if you come up with something that every citizen should know, and it should be in the curriculum, how do you deal with subject fragmentation? My approach to that is to say that in every area by grade 8 you've got to have a basic level of literacy."[25]

5.4 Question Four: Are classrooms across Ontario fostering food citizenship?

Throughout the interview process, numerous attempts were made to speak with employees at the Curriculum and Assessment Policy Branch of the Ministry of Education. These attempts began with emails and phone calls, and despite 'virtual' introductions to various employees through respondents, I was told that my interview requests could not be approved. Therefore this section of the Chapter is based on two main resources: the email I was sent as a

[25] This is an issue that Debbie Field of FoodShare has an interesting solution for that will be discussed in Chapter 6.

response to my request for interviews and the curriculum documents[26] for Social Studies (Grades 1-6), Science and Technology (1-8), and Health and Physical Education (1-8)[27].

Because the purpose of this study is to better understand the ways in which curriculum supports, or does not support the inclusion of food and agricultural topics into classrooms, curriculum expectations and standards must be thoroughly analyzed. And despite the fact that the Ministry of Education would not consent to an interview, the email response from the Curriculum and Assessment Policy Branch regarding my request included the following information:

> The Ministry of Education is committed to helping students succeed by ensuring that students are provided with the knowledge and skills they will need to be successful when they leave school. For this reason, there are currently opportunities for students to learn about food and agriculture in the elementary and secondary curriculum (Ministry of Education, email communication. October 7th, 2009).

The email encourages me to look into the following strands of curriculum, to find evidence of the above-mentioned opportunities for students. Therefore in order to better understand the opportunities for inclusion that exist within curriculum, an analysis of the above mentioned curriculum documents will be conducted specifically looking for any expectations that lend themselves to the concept of food citizenship. The following table is based on a thorough analysis of the curriculum expectations in subjects that were said to include food and agricultural topics. Because the concept of food citizenship is complex and multi-faceted, I included any expectation that could arguably be used to promote it.

---

[26] All documents can be downloaded as PDFs here: http://www.edu.gov.on.ca/eng/curriculum/elementary/grades.html

[27] The email also states that students learn about food and agriculture in the Health and Physical Education Grades 1-8 curriculum, Social Studies Grades 1-6, History/Geography Grades 7-8 curriculum, and the Science and Technology, Grades 1-8 curriculum.

Grade	Social Studies Curriculum	Science and Technology Curriculum	Health and Physical Education
One	explain how events and actions can cause rules and responsibilities to change, and describe what some new rules and responsibilities might be (22)	describe the characteristics of a healthy environment, including clean air and water and nutritious food, and explain why it is important for all living things to have a healthy environment (46)	explain why people need food to have healthy bodies (80)
	identify the physical and social needs of residents in an area (35)	describe how showing care and respect for all living things helps to maintain a healthy environment; identify what living things provide for other living things (46)	describe how the food groups in Canada's Food Guide* can be used to make healthy food choices (81)
		investigate how the sun's energy allows humans to meet their basic needs, including the need for food (51)	know and recognize cues to hunger, thirst and the feeling of fullness, and explain how they can use these cues to develop healthy eating habits (82)
		identify food as a source of energy for themselves and other living things (52)	
Two	demonstrate an understanding that communities may be made up of people from many cultures (23)		use Canada's Food Guide to assess the nutritional value of meals and identify food and beverage choices that enhance healthy growth and development (96);
	identify ways in which heritage and traditions are passed on (23)		demonstrate an understanding of how to make healthy food choices for meals and snacks, consider the factors they can and cannot control (e.g., the food that's available in the home; the food that's available when eating out) (96)
	describe some similarities and differences in the ways communities around the world meet their needs (37)		

Grade	Social Studies Curriculum	Science and Technology Curriculum	Health and Physical Education
Three	compare land use and access to natural resources in urban and rural communities (39)	assess ways in which plants are important to humans and other living things, taking different points of view into consideration and suggest ways in which humans can protect plants; germinate seeds and record similarities and differences as seedlings develop (e.g., plant quick-growing seeds-nasturtium, morning glory, sunflower, tomato, beet, or radish seeds) (71)	demonstrate an understanding of how the origins of food (e.g., where the food is grown, how it is made) affect its nutritional value and environmental impact (108)
	describe ways in which they and their families use the natural environment (40)	describe ways in which plants and animals depend on each other; describe the different ways in which plants are grown for food and explain the advantages and disadvantages of locally grown and organic produced food, including environmental benefits (72)	demonstrate an understanding of the importance of good oral health to overall health, and assess the effect of different food choices on oral health (110)
		assess the impacts of soils on society and the environment, and suggest ways in which humans can enhance positive effects and/or lessen or prevent harmful effects (80)	explain how local fresh foods and foods from different cultures (e.g., berries, curries, chapattis, lychees, kale, lentils, corn, nan, wild game, fish, tourtiere) can be used to expand their range of healthy eating choices (111)
		identify additives that might be in soil but that cannot always be seen (e.g., pesticides, fertilizers, salt) (81)	
Four		identify reasons for the depletion or extinction of a planet or animals species, evaluate the impacts on the rest of the natural community, and propose possible actions for preventing such depletions of extinctions from happening (85)	identify the key nutrients (e.g., fat, carbohydrates, protein, vitamins, minerals) provided by foods and beverages, and describe their importance for growth, health, learning, and physical performance (127)
		build food chains consisting of different plants and animals, including humans (85)	analyse personal food selections through self-monitoring over time, using the criteria in Canada's Food Guide, and develop a simple healthy-eating goal appropriate to their age and activity level (130)

Grade	Social Studies Curriculum	Science and Technology Curriculum	Health and Physical Education
		demonstrate an understanding of food chains as systems in which energy from the sun is transferred to producers (plants) and then to consumers (animals) (86)	identify ways of promoting healthier food choices in a variety of settings and situations (132)
		demonstrate an understanding of a community as a group of interacting species sharing a common habitat (86)	
Five	identify responsibilities that accompany particular rights (44)*	assess the effects of social and environmental factors on human health, and propose ways in which individuals can reduce the harmful effects of these factors and take advantage of those that are beneficial (99)	explain how to use nutrition facts tables and ingredient lists on food labels to make healthier personal food choices (145)
	model activities and processes of responsible citizenship (46)	evaluate the environmental impacts of processes that change one product into another product through physical or chemical changes (105)	describe how advertising and media influences affect food choices (e.g., TV commercials, product packaging, celebrity endorsements, product placements in movies and programs, idealize body images in movies and programs, magazine articles promoting fad diets), and explain how these influences can be evaluated to make healthier choices (147)
		assess the social and environmental impacts of using processes that rely on chemical changes to produce consumer products, taking different perspectives into account, and make a case for maintaining the current level of use of the product or for reducing it (105)	

Grade	Social Studies Curriculum	Science and Technology Curriculum	Health and Physical Education
Six	describe the attitude to the environment of various First Nation groups and show how it affected their practices in daily life (31)	assess the benefits that human societies derive from biodiversity and the problems that occur when biodiversity is diminished [sample issue: Monoculture systems on farms allow crops to be grown in the soil that is best for them. But monoculture systems reduce diversity, and so more soil and pest problems result. In turn, farmers apply more chemical fertilizers and pesticides, which pollute the land, the water, and the food they are producing (113)	apply their knowledge of medical, emotional, practical, and societal factors that influence eating habits and food choices (e.g., allergies and sensitivities, likes and dislikes, dental health, food availability, media influences, cultural influences, influence of family and friends, school food and beverage policies, environmental impacts, cost) to develop personal guidelines for healthier eating (161)
	identify products that Canada imports and exports (47)	describe ways in which biodiversity within and among communities is important for maintaining the resilience of these communities (e.g. having a variety of species of wheat allows for some part of the crop to survive adverse conditions) (114)	apply their recognition of internal hunger and thirst cues and their knowledge of physical factors that influence the desire to eat and drink (e.g., stage of development, growth spurts, level of physical activity, eating larger portions) to develop personal guidelines for healthier eating (161)
			explain how healthy eating and active living work together to improve a person's general health and well-being and how the benefits of both can be promoted to others (163)

* The concepts of rights and responsibilities align themselves with notions of food citizenship. For example, the right to culturally appropriate food, the right to know what is in your food, or the responsibility a person has to make food choices that are good for the environment.

The table gives an overview of the curriculum expectations that arguably lend themselves to concepts such as food citizenship, and it is evident even upon first glance that there is opportunity within curriculum to discuss these sort of concepts with students. In fact, the Health and Physical Education Curriculum document commences by stating that, "[t]he curriculum recognizes that the needs of learners are diverse, and helps all learners develop the knowledge,

skills, and perspectives they need to be informed, productive, caring, responsible, healthy, and active citizens in their own communities and in the world" (2010, 3). Additionally, curriculum documents consistently referred to a document entitled *Shaping Our Schools, Shaping Our Future: Environmental Education in Ontario Schools* authoured by The Working Group on Environmental Education. They note that environmental education

> is the responsibility of the entire education community. It is a content area and can be taught. It is an approach to critical thinking, citizenship, and personal responsibility, and can be modelled. It is a context that can enrich and enliven education in all subject areas, and offer students the opportunity to develop a deeper connection with themselves, their role in society, and their interdependence on one another and the Earth's natural systems (2007, 10).

Despite the rhetoric used in the above mentioned curriculum documents, it must be noted that food is a topic that naturally resists the siloed approach to education, because it is best understood and appreciated through a variety of lenses. Because curriculum demonstrably uses a rigid structure, in terms of what food and agricultural topics should be discussed in which classes and to what depth, opportunities for synergies that may even address several curriculum expectations at once, are lost opportunities.

Once curriculum has been thoroughly explored, it becomes evident that while students are not *guaranteed* to be taught about these issues in meaningful and lasting ways, the opportunities for teachers to engage these topics are present. Therefore, this begs an even greater question: if these issues are recognized as being important to parents, teachers, community members, as well as people working on curriculum, why did respondents report such a disconnect between young eaters and the food they eat?

5.5 Summary

Respondents reported that there were several opportunities to incorporate food and agricultural topics into their classrooms. Specifically, they mentioned that food and agriculture offer a unique lens through which a young person can understand the world and their place in it (5.2.1). Also, the perception of freedom for the educator within the curriculum to make the connections that they deem important means that for any teacher that is aware of the current crisis facing many young people and their food relationships, these issues would likely find a place in the classroom (5.2.2). And lastly, the push for reinstating the home economics courses in schools is seen by many respondents as important, timely and cause for optimism (5.2.3).

However, after an analysis of curriculum reveals that food and agricultural topics are (on paper) included as key expectations for students, the barriers and limitations associated with teaching food and agricultural topics becomes of paramount importance. Respondents cited a number of barriers, more specifically:

- Pressure of competing curriculum expectations (5.3.1)
- Curriculum priorities elsewhere (5.3.2)
- Teachers uncomfortable/uninterested/uninformed about topics (5.3.3)
- General barriers: infrastructure, ambivalence, subject fragmentation (5.3.4)

The issues surrounding a teacher's own perceptions and beliefs and the role that they play in the inclusion or exclusion of a topic is one that is seen in the literature as being very important (Knobloch, 2008). In addition to respondents expressing similar concerns, curriculum documents even commented on this interest-level issue. One example found in the Health and Physical Education curriculum states that,

> To increase their comfort level and their skill in teaching health and physical education and to ensure effective delivery of the curriculum, teachers should reflect on their own attitudes, biases, and values with respect to the topics

> they are teaching, and seek out current resources, mentors, and professional development and training opportunities, as necessary. (2010, 11)

This sort of encouragement implies that this is an issue recognized at the Ministry level, and one that is worth highlighting. Because teachers are ultimately in control of their classroom environments (the way they choose to incorporate curriculum expectations into classrooms), and in light of the illuminations made by both respondents and curriculum documents, this is seen as being an issue of the utmost importance. The following chapter is focused on a series of recommendations and insights based on these findings.

CHAPTER SIX: WHERE DO WE GROW FROM HERE?

6.1 Summary and perspectives for the future:

This research argued that if sustainable food systems are truly the end goal of alternative food movements, then education must be seen as an integral component to that movement given the loss of food skill and knowledge in the general population. The literature acknowledges that nature is a socially constructed concept that varies greatly between people and creates different personal values and expectations (Cronon, 1996). This research has demonstrated that the disconnection between eaters in the industrialized world and their food is seen as being particularly troubling, and that education is seen as a re-connective force.

Concepts like food citizenship (Wilkins, 2005) can act as a means to develop a more holistic understanding of human beings and their relationship with nature: one that is complex and has been produced and reproduced by a number of actors for a variety of reasons (Castree and Braun, 2001). Food citizenship encourages a plurality of perspectives that respect and invite different worldviews. It challenges the notions that nature can and should be dominated by humans, and that technologically based solutions to food issues are the answer. Additionally, food education (especially examples that lend themselves to food citizenship) challenge the distanciation results from by the industrial food system, through explicitly fostering experiential and meaningful interaction with food systems. Given that the industrial food revolution has diminished peoples' skill sets[28] (both eaters and producers) (Jaffe and Gertler, 2006), educational initiatives that encourage food citizenship can make an important contribution for health, environmental, social and economic reasons.

---

[28] The concept of 'deskilling' and the need for 'skilling' is becoming a more mainstream discussion with books like Fast Food Nation by Eric Schlosser and films like 'Food Inc.' exploring this issue.

This research project set out with four main questions: Does food education for children matter? Are there positive impacts of food education on children? What are the opportunities and barriers that exist for food citizenship to be taught in schools? And, in what ways, if any, does the curriculum support the inclusion of food and agricultural topics in the curriculum in a way that supports food citizenship? The research project investigated these questions through the use of: key informant interviews with parents, teachers, school board employees, and various community organizers; and a review of the elementary grade curriculum documents for the Social Sciences, Health and Physical Education, and Science and Technology in Ontario. Though Ministry officials were contacted a number of times, unfortunately none consented to participate in this research.

6.2 Overview of the main findings:

The research results were organized into two main components: 1) Chapter Four focused on understanding the perceptions surrounding food education and children and 2) Chapter Five focused on illuminating the barriers and opportunities within curriculum and classroom for food citizenship.

6.2.1 Food education is important

Across the board, the range of respondents held that food education is incredibly important for children, and believe that the classroom can be a critical environment for raising the level of food literacy and citizenship.

It is perceived that food education places a value on life skills, many of which have had their importance minimized in our curriculum due to the contemporary emphasis on post-secondary pursuits. With some irony, the bigger picture suggests that a lack of basic food skills

can result in a reliance on processed foods and therefore lead to greater health and environmental issues. All categories of respondents also reported that food education is of paramount importance given that home environments are changing. Most homes now see the primary caregivers seeking work outside of the home and therefore the transmission of basic food skill is no longer guaranteed[29]. This illustrates that respondents have an explicit understanding of what this research has defined as 'generational deskilling' (discussed in Chapter 2.3) by which a person is not longer guaranteed to acquire food skills and knowledge at home. Respondents tended to follow this up by explaining that it is now up to the educational institutions to fill in the gaps by placing greater emphasis on food education in their classrooms[30].

Respondents remarked that this also has serious cultural implications and drew heavily on their own personal experiences to inform this position, suggesting that an emphasis on food education is highly personal, and yet tied to cultural prisms stemming from respondent family experiences. The idea of cultural food practices being 'lost' was a common theme throughout the interviews, and is seen as a tragedy directly correlated to the rise in processed food products. This could also be linked to ideas of 'palette deskilling', or 'standardized/homogenized' deskilling with regards to how a young person today may experience dishes seen as integral to their food cultures in a completely different way than their parents did.

Lastly, respondents, particularly parents, value the importance of food education because the perceived disconnection that many children face with their food choices is viewed as being 'unnatural'. Food education is perceived to foster a greater connectedness to food sources than

---

[29] 'generational' deskilling (discussed in Chapter 2) would argue that this is not even the first generation to suffer from a deficit of food skills, however given the rise in processed foods geared directly to children in the last 20-30 years, this is a more dangerous situation than ever.

[30] This is a statement that evokes the contested issue of the nanny state.

the dominant food system currently allows, and such education would thereby enable children to perceive the value of engaging in more responsible, healthy food practice. As previously mentioned, education is seen as a connective force, displaying an understanding of the distanciation our dominant food system has created from the natural world.

6.2.2 The perceived benefits of food education

When asked what some of the tangible benefits of food education might be, respondents focused on the changes that it encourages. Of these perceived benefits, they tended to consist of two dimensions: practical changes and societal-communal changes. The practical changes include:

- *The positive influence food education has on purchasing decisions-* while in the literature children are seen as vulnerable to the promises made by processed food products, educators and community organizations also commented on the power they possess as decision-makers about what kind of food is brought home from the grocery store. Respondents reported that this 'impressionability' can have a positive impact, if children are taught meaningfully about the benefits of consuming whole foods, though the depth of the contrary message held by children's peers and the industrial food industry remains. Additionally this can act as a combative force to the issues associated with 'professionalized deskilling' through ensuring young people have a holistic healthy literacy, from which they can make informed decisions.
- *The encouragement of positive eating practice-* Food education encourages the development of better eating practice for children and their families by demonstrating a greater understanding of food options and healthy, sustainable choices.

- *Showcasing farming as a viable, desirable career-* Due to the relatively recent emphasis on post-secondary career paths, students are directed away from opportunities to develop interests in food or agricultural pursuits. Several respondents report that food education is the first step in showcasing food and agriculture as desirable career paths for young people.
- *Recognizing health-related illness-* When students possess an understanding of and appreciation for food and agriculture, respondents see a direct linkage to minimizing impacts of health-related illness that are currently impacting an increasing proportion of Canada's young population. Respondents also referred to projected stresses on health care systems and discussed how food education could help to alleviate these challenges.

Societal-Communal changes include:

- *A connectedness to community and world-* Many respondents reported that a greater ability to understand the process from field to table is a powerful way to better understand one's own community, foodshed, and world. This is said to make young people better, more engaged and responsible citizens.
- *A connectedness to the natural world-* Respondents from across the key informant groups shared stories about children in both urban and rural areas that had never interacted with the natural food world. This is seen by respondents as being 'unnatural' and a hindrance to both their personal development and the environmental movement, as food education could also sensitize them to the impacts of environmental degradation if they understand that they are part of an interconnected system. Having a meaningful connection to the natural world is seen as an integral part of a person's culture and their general happiness.

- *A greater sense of empowerment*- Several respondents commented on the empowerment a young person can feel when given the opportunity to develop and utilize food and agricultural skill and knowledge. This also tied into a perceived 'freedom' from or altogether rejection of the processed food industry.

6.2.3 Opportunities and Limitations for Inclusion as reported by Participants

Respondents perceived that there are opportunities to include food and agricultural topics into classrooms. Specifically they reported that food offers a unique and appropriate lens through which a young person can better understand their world and place within it. Educators also found opportunities due to the flexibility within the curriculum to make connections that they, as educators, deem important. And lastly, respondents involved in education and for various community organizations see mobilizing around home economics revival initiatives as important, timely and grounds for optimism about increased opportunity to encourage food education.

The analysis of curriculum expectations revealed that, at least on paper, food and agricultural issues are *somewhat* present in the curriculum. However, given the siloed approach to curriculum development, there is little to no opportunity for synergies between subjects. This compartmentalization reinforces the same ideas of separation between humans and nature, with the natural world (and specifically the food system) being something we can 'dissect' and master an 'understanding' of, as opposed to an approach that favours a more holistic, constantly evolving understanding and appreciation of our food system. In addition to this, the personal beliefs, attitudes and knowledge of individual teachers play an extremely important role in the extent to which these curriculum expectations are actually stressed in the classroom.

Lastly, respondent reported barriers to incorporating food and agricultural topics into classrooms were further contextualized by the above-mentioned curriculum analysis. These barriers included:

- *The pressure of completing curriculum expectations-* Respondents reported that a lack of time is a major determining factor when discussing the possible incorporation of food and agricultural topics into classrooms.
- *Curriculum priorities being elsewhere-* Because there are major issues surrounding literacy and numeracy priorities in the curriculum, these themes often taken precedence over food and agricultural topics.
- *Teachers uncomfortable/uninterested/uninformed about topics-* There is a recognition by respondents, particular those working in education and with community organizations, that food and agricultural topics making their way into classrooms is "largely luck of the draw" due to the belief that if a teacher does not desire, or is not able to comfortably include these themes in their classroom, it is easy to simply not do so. This lack of knowledge or disinterest is seen by respondents as a crucial barrier to overcome, as a level of consistency in the implementation of these skills in the curriculum is seen as necessary, or otherwise the inclusion is based almost entirely on the choice or interest of the individual educator.
- *General barriers: infrastructure, ambivalence and subject fragmentation-* Respondents reported several more general barriers that help to contextualize some of the above-mentioned issues. The first is an issue with physical infrastructure, as one cannot simply talk about food, one has to 'do food'. This becomes a major challenge with the overall lack of food-related infrastructure in many schools today (for example: gardens, kitchens, food itself, spaces for

experiential learning, and money/resources for field trips). The next barrier involves the ambivalence surrounding the importance of food and agricultural topics, which makes it difficult for educators to prioritize the serious issues that lay within these topics. Lastly, 'subject fragmentation' is an issue that occurs when the courses that do focus on food skills or agricultural knowledge are *present* in the curriculum, but only being taken by a small percentage of students. This is an issue that will be discussed again later in the chapter.

6.3 Challenges and future possibilities

As respondents of all groups reported, in the world of food education there are possibilities for reaching children. It is seen as vital, timely and tangible even within the existing curriculum constraints. However, that does not imply that there are not major challenges, as this study has illuminated. The following sections highlight some of the previously mentioned challenges that exist, as well as potential solutions and future possibilities for addressing them.

6.3.1 Recognition of teachers' own comfort and beliefs on topics

The findings strongly suggest that while curriculum does in fact include food and agricultural topics in expectations across various disciplines, the freedom that exists for educators to approach these topics in their own ways, mean that a certain standard of engagement for students cannot be guaranteed. This is especially critical when the literature points to the loss of food skill and knowledge transference in the home. By recognizing that a major determining factor is the role that a teacher's own comfort and interest play in teaching these topics, curriculum can be better shaped to accommodate a wider range of teachers. This would reach a wider range of teachers, not just those with an existing interest in these issues. Additionally, creating more support for teachers would address the disconnect that exists between what the

Ministry mandates through curriculum, and the way that they facilitate the delivery of these expectations. This support could exist in the form of:

- supportive classroom outlines for units/activities focused on food and agriculture
- opportunities for training workshops and resources
- documents outlining sources of information, ideas for activities, etc.

This would also minimize the challenge associated with the next barrier: consumer versus citizen approaches to food education.

6.3.2 Consumer versus citizen approaches to food education

As discussed in Chapter Four, in the context of Ontario curriculum, OAFE is the only organization with a primary focus on food and agricultural education. It is estimated that their educational resources reach about 2 million students in Ontario (OAFE, 2010). Their primary mission is to "[work] together to increase awareness of the agri-food industry by providing educational programs and resources" to the public school system (OAFE, 2010).

While OAFE recognizes the importance of connecting students to food and agricultural topics, by prioritizing the need for 'awareness of the agri-food industry', it becomes apparent that this economic approach does not easily lend itself to concepts such as food citizenship or food democracy. This is supported by one educator, familiar with OAFE, who argues that their "commodity push", in their opinion, is "not the best way" to approach food education. While some of OAFE's funding comes from the Ministry of Agriculture, Food and Rural Affairs, the 'Innovator and Patron Members' roster for the organization includes: Monsanto, the Dairy Farmers of Ontario, Ontario Pork, the Ontario Federation of Agriculture (OFA), and Pioneer (A DuPont Company) (OAFE, 2010).

The Ministry of Education heralds OAFE as an educational resource utilized by teachers to "help make Ontario's schools healthier places for students to learn and grow" (Healthy Schools, 2010), thereby indicating that the government sees value in approaching food education from an economistic standpoint, even if the resources utilized to do so have been created through the support of controversial corporations like Monsanto. Additionally, OAFE has a considerable amount of pull with the Ministry of Education, as highlighted by an OAFE staff member,

> we have been fortunate to have some influence on the curriculum and curriculum expectations by sitting at the table when the Ministry of Education is developing that, in a whole lot of subject areas, so that we're trying to use examples from agriculture, and food production and the science of that, so teachers are now having to teach that in the classroom. Certainly that is where our resources come in, because then it gives them the ideas, whether it is inside the classroom or out.

When considering the commoditized approach to OAFE's food education model, and the influence the organization has on curriculum development and revision, some of the reasons that food and agriculture-focused curriculum remains siloed in various disciplines is more evident.

An outcome of this research is the suggestion that one of the future opportunities for food education to lend itself more meaningfully to food citizenship is to illuminate some of the best practice as potential 'templates' for food citizenship initiatives. Because various organizations are approaching food education differently, the result is different and sometimes conflicting outcomes, with OAFE's approach encouraging commoditization, and an example like the Green Barn Program utilizing a citizen-centric approach.

To highlight these different approaches, the following is a list of program goals from the Stop's Green Barn Grade Five program:

1) Teaching children where their food comes from
2) Creating a positive experience around growing and eating healthy food
3) Exploring how our well-being is interconnected with the health of our community and nature

4) Empowering kids to become active agents of social change (Grade Five Program Brochure, 2010).

While the first three goals may also apply to educational initiatives like those at OAFE, the idea of "empowering kids to become active agents of social change" runs counter to the goals of OAFE, whose resources reinforce the binary roles of producer and 'consumer'. A simple review of the approaches taken by each organization highlight the differences in approach.

The Green Barn program meets the above mentioned goals through the use of five different units covered throughout the school year. These units have been designed to fit into already existing curriculum expectations and they are described as:

1. The Real Dirt on Food Systems- Students explore the steps involved in getting food from field to table while experiencing some of the challenges of various food production methods.
2. The More We Get Together!- Students are encouraged to move beyond the idea of charity towards a social justice model that focuses on building healthy communities through democratic solutions.
3. Growing Back to Our Roots- Students examine traditional and modern methods of food production, with an emphasis on biodiversity, sustainability and indigenous practices.
4. Cooking Traditions- Students build confidence in the kitchen while they cook a meal together, share their own food traditions, and explore how the media influences their food choices.
5. Scraps to Snacks- Students investigate the process of composting from start to finish: adding their own scraps to the pile, assessing decomposition, planting seeds in compost-rich soil, and finally snacking on fresh greenhouse produce (Ibid).

The goals of this program align themselves closely with concepts like food citizenship and food democracy, by focusing on the agency of people as citizens, as opposed to their function as consumers. When comparing the Stop's approach to OAFE's, major differences are notable. OAFE offers an online resource library to teachers who can download curriculum resource and activities for free or a small fee. A quick glance at this library shows a much more commodified approach. A few examples of informational resources found in the library include:

- *"All About Pigs*- This educational resource from Ontario Pork, has been developed to meet curriculum expectations in the areas of Science and Technology, Mathematics, Health, Social Studies and

Language. The kit includes a Teacher's Guide, poster, feed samples, and a fully interactive game". (OAFE, 2010)

- *"Close to Home-* Fun-filled songs about healthy eating, taking care of the environment, shopping close to home, and sharing the harvest" (Ibid).
- *"Canola: Canada's Oil-* This informative resource looks at the growing and processing of Canola, with added emphasis on nutrition and additional products and/or uses for this crop. Includes 4-4 page colour brochures and a teacher's guide. Links to Science, Social Studies, Language, Health and Math curriculum" (Ibid).
- *"Farms, Food, and Fun: an Agri-Knowledge Challenge-* This CD provides a selection of fun and educational trivia challenges about Ontario's agri-food industry, making it suitable for classrooms, fairs, or anywhere that children (or adults) gather. Each challenge includes questions about general farming facts and figures; agriculture's productivity and innovation or food safety and nutrition" (Ibid).
- *"Food Biotechnology-* Designed to meet curriculum expectations for Gr. 11-12 Geography, Biology, Family Studies and English, the focus of the activities described in this new resource is critical thinking as it applies to the topic of biotechnology. The organizational framework for this document is based on the latest research on learning styles" (Ibid).
- *Growing for a Sustainable Future: Ontario Agriculture and the New Bioeconomy-* To be good to the environment, we don't need to look any farther than earth's natural resources. What could be better for Mother Nature than products made from plants grown right here in Canada? (Bilingual) To complement this resource a Teacher's Guide is available in the download section of the web site (Ibid).
- *Pizza Perfect-* This resource package focuses on the fun, taste and healthy advantages of eating pizza. Divided into three sections, Production, Processing and Marketing, the package includes 26 Activity Cards plus a Teacher's Guide of teaching strategies, activity suggestions, and assessment rubrics. Linked with the Grade 3-4 curriculum in Social Studies, Science/Technology,and Mathematics (Ibid).

When comparing the approaches used by the Stop and OAFE, it is apparent that the Stop encourages food citizenship, as well as social justice and food democracy in an experiential way, while OAFE's approach reaffirms and emphasizes the status quo of a person's primary role in the current food economy as consumer from a young age, as well as an understanding of food as a commodity like any other. While this is a big challenge facing food education and the pursuit of food citizenship, much can be gained by highlighting best practices as templates for food education initiatives across the province.

In addition to this, there are opportunities for synergy between organizations like OAFE and the Green Barn program. OAFE's roster includes organizations whose primary role is to ensure that farmers are given a fair opportunity to be successful in their profession (the Ontario Federation of Agriculture) and therefore the commodified approach is an effort to encourage

young people to appreciate where their food comes from. A program like the one at the Green Barn approaches their educational initiatives in a more citizen-based framework. However there need to be opportunities for initiatives like these to link up and create more positive change together.

6.3.3 Subject Fragmentation

The respondent-reported issue surrounding subject fragmentation is one that impacts students across the province when they reach high school. Because of this, Debbie Field of FoodShare calls for cooking skills as a prerequisite for high school graduation as a response to the fragmentation dilemma. She explains that "[w]e are pioneering an idea that the Grade 12 diploma in Ontario needs to change so that nobody can graduate high-school without food literacy, and that means teaching kids how to cook and garden, keep bees, compost from the youngest ages". This initiative addresses the problem of subject fragmentation and alleviates the 'hit-or-miss' nature of food and agricultural education at the secondary level, by ensuring consistent opportunities to develop and strengthen food skill and knowledge for students. Additionally, this initiative recognizes that food is an opportunity to bring curriculum together, across subjects, and avoid further fragmentation by not simply focusing on the rudimentary components of a young person's relationship with food, but a more holistic and inclusive one.

6.4 Contributions, limitations, and future research opportunities

6.4.1 Scholarly and applied contributions

The current state of food and agriculturally focused topics and themes in elementary school classrooms is an excellent example of the disconnection that human beings have created from nature. Rather than using food and agricultural topics in a connective way (in a way that

discourages siloing), the current educational system favours a rigid and compartmentalized approach to 'understanding' food and agriculture, despite the fact that food and agriculture are best understood and appreciated through a variety of lenses and approaches, as it is a topic that reaches across disciplines (i.e.: history, geography, social sciences, sciences and technology, health, etc.).

This decided compartmentalization is an example of Castree and Braun's idea of social nature, which sees nature as being *remade* for a variety of purposes (2001, 15). In the particular case of education, the complex concept of nature (and particularly food and agriculture) is fragmented across various subjects and various grades. Therefore a young person's opportunity to engage with both the concept, as well as the natural world around them is severely compromised. In fact, some food education initiatives have constructed an idea that nature's primary purpose is to 'serve' us, through the use of a highly commoditized approach to food and agricultural understanding (i.e.: OAFE's approach to food education). In fact, when food and agricultural education is approached in this way, there is a risk of prioritizing environmental issues "without ever addressing the deeper causes responsible for those problems in the first place", a critique which Castree and Braun identify within the academic world (2001, 3).

While the journey toward food citizenship cannot be described as linear given the highly personal determinants of food practice, there are still benefits to understanding the journey as a spectrum, as displayed on page 34. The 'passive food consumer' is where the education system must assume young people are situated when they enter the school system, to ensure the 'hit-or-miss' nature of formal and informal food education does not compromise a person's ability to

become a food citizen. As young people progress through the education system, their journey on the spectrum shifts accordingly, toward food citizenship.

The findings from the interviews show that respondents perceive a person's food practice as existing on a spectrum, as demonstrated through their description of young peoples' relationships with food as indicative of a 'disconnection' (and often discussing examples of a 'connected' food practice). Overall respondents are not confident that young people are learning about these topics and issues in meaningful ways, suggesting that there is recognition that a more 'ideal' relationship with food does exist. This indicates that a spectrum may be a useful resource when discussing the journey towards food citizenship in the educational context.

Additionally, assessing the curriculum through the spectrum reveals the opportunities that currently exist within curriculum to enable the progression from passive food consumer, to food citizen. It also points to limitations with the current approach. The spectrum does so by providing a framework through which curriculum developers can better assess if the current approach to food and agricultural topics encourages the progression that is illustrated on the spectrum, which was generated out of the extant literature on sustainable food systems. The illustration can be utilized as a resource to understand the ways in which curriculum can better encompass these important themes of social justice, rights-based food approaches, food democracy and food citizenship.

This research also adds to the literature on concepts such as food citizenship, food democracy and community food security by explicitly drawing out the opportunities that exist in formal educational environments to teach students about these issues in meaningful ways, and by

pointing out the current deficiencies in such educational themes, and some of the impediments which restrain shifts to more sustainable-food system learning.

This research builds on the literature focused on food education initiatives -- or lack of -- for children, by specifically focusing on formal educational environments to understand the perceived importance of these issues at the government level (in the development of curriculum). This research also illuminated that food and agricultural education is perceived as being important to parents, teachers, school boards, as well as people involved in community food organizations. In addition, it has added to the literature on sustainable food systems by making linkages between the deskilling of populations and the increased importance of food citizenship in schools, to influence a generation of people who would therefore value, understand and contribute to a more sustainable and just food system.

Lastly, this research uncovered that food education initiatives occurring within Ontario are spread across a large spectrum in terms of how they relate to food citizenship. This does not mean that any particular initiative is more important than another, however given that the literature indicates food citizenship should be an end goal of alternative food movements, the educational initiatives that encourage and foster food citizenship are arguably the ones that are considered best practice for future initiatives. It is worth reiterating that while OAFE's approach is different than the example of the Green Barn program, both value fostering a greater sense of food literacy in children, regardless of however different the definition of 'food literacy' is to each organization. Greater communication between various organizations focused on food and agricultural educational resources and programs will only strengthen the presence of these issues in classrooms across the province.

6.4.2 Limitations and future research

Despite numerous attempts, my requests for interviews with people at the Ministry of Education and Health Canada were denied. People working on curriculum, as well as people shaping the discourse on 'healthy food systems' are major players in the discussions of factors influencing school environments, and this resulted in 'missing guests' (Goodman 2004) at the table. The process by which the Ministry of Education initially considered my interview request explicitly stated that all interview questions would have to be given before the time of the interview and all responses would be provided in writing. This is particularly disturbing, given that one imagines a degree of openness around discussing the process of setting curriculum for young citizens.

One limitation with my research was my geographic focus. By focusing my key informant interviews almost entirely in Southern Ontario there is no opportunity for comparison between different parts of the province, provinces, and the research cannot discuss these issues at a national scale. Additionally, in the future, a larger sample would mean that a researcher could look for trends at the specific grade level, (are teachers of a specific grade that has more curriculum expectations focused on food, generally more interested in food and education in their classroom?). This would even further increase our understanding of the role that beliefs and attitudes play in teaching these issues.

As mentioned in Chapter Three, the group of parents interviewed for this research project were not intended to be representative, but rather, they offered an opportunity to begin to explore the ways food education is perceived at home, and some of the major challenges surrounding the

inclusion of these topics in curriculum. However, the small group interviewed is a notable limitation of the study.

Another noted limitation with this research project that the information children share with their parents about school is not necessarily reflective of how much they know. For example, parents were asked to provide examples of any food or agricultural knowledge that their children acquired at school. While most parents could provide a response to this, it is not likely that children pass on all issues and topics discussed in their classrooms. However, the literature does state that there is an overall lack of knowledge and skill among young people today, so this limitation is more of an observation and something to consider for future research.

This project has shown that there are a number of future research opportunities focused on this topic, including the need to better understand teacher training as one way to understand the gaps that exist in an educator's training that disable or disinterest them from meaningfully including food and agricultural topics in their classrooms.

Future research opportunities in this area are rich, especially given that findings suggest that while curriculum has the actual presence of some food and agricultural topics in their expectations, there still exists a large perceived disconnection between young people and food. Where is this gap? It may in fact be the systemic lack of comfort or interest that teachers have on these issues, and therefore the need for better understanding this disconnection at its various levels becomes of paramount importance. The implications of these findings for theories of sustainable food systems, as well as concepts like food citizenship, food democracy, and food literacy, suggest that a re-imagining and a prioritization of the classroom as a space for the

exploration and development of these concepts would be beneficial, indeed necessary based on the findings from this research. Additionally, because educators are an important medium through which children develop their worldviews, values and practice, the literature must recognize the value of teachers that are skilled and literate on issues surrounding food and agriculture, if the positive transformation of the "passive food population" (Wilkins, 2005) is to occur at a meaningful scale.

REFERENCES

Agyeman, J., and B. Evans. "'Just Sustainability': The Emerging Discourse of Environmental Justice in Britain?" The Geographical Journal 170.2 (2004): 155-64.

Ahlgren, M., I. B. Gustafsson, and G. Hall. "Attitudes and Beliefs Directed Towards Ready-Meal Consumption." Food Service Technology 4.4 (2004): 159-69.

Aitken, S. C., and G. Valentine. "Approaches to Human Geography." Sage Publishing, 2006, 1-13.

Allen, P., M. Fitzsimmons, M. Goodman and K. Warner. "Shifting Plates in the Agrifood Landscape: The Tectonics of Alternative Agrifood Initiatives in California." Journal of Rural Studies 19.1 (2003): 61-75.

Allen, P. "Mining for Justice in the Food System: Perceptions, Practices, and Possibilities." Agriculture and Human Values 25.2 (2008): 157-61.

Anderson, M. "Rights-Based Food Systems and the Goals of Food Systems Reform." Agriculture and Human Values 25 (2008): 593-608.

Barnes, T. J. Logics of Dislocation. Guilford Press New York, 1996.

Bell, David, and Gill Valentine. Consuming Geographies: We Are Where We Eat. (1997) London: Routledge.

Blay-Palmer, A. and B. Donald. "Food Fear: Making Connections". In: Food Fears: From Industrial to Sustainable Food Systems (2008) Burlington: Ashgate Publishing: 1-17.

Blay-Palmer, A. Food Fears: From Industrial to Sustainable Food Systems (2008) Burlington: Ashgate Publishing.

Blay-Palmer, A. "Food Systems and the city." In (eds.) T. Bunting, P. Filion and R. Walker *Canadian Cities in Transition: Local through global perspectives*. Oxford: Oxford University Press (FORTHCOMING).

Blay-Palmer, Alison. "Growing Innovation Policy: the Case of Organic Agriculture in Ontario, Canada." Environment and Planning C 23 (2005): 557-581.

Bisogni, C., M. Connors, C. Devine, and J. Sobal. "Who We Are and How We Eat: A Qualitative Study of Identities in Food Choice." Journal of Nutrition Education and Behaviour 34.3 (2002): 128-139.

Caraher, M., et al. "The State of Cooking in England: The Relationship of Cooking Skills to Food Choice." British Food Journal 101 (1999): 590-609.

Castree, N. Social Nature: Theory, Practice and Politics. Blackwell Publishing, 2001.

Clapp, J. "A Global Outlook on Food Studies." Food, Culture and Society: An International Journal of Multidisciplinary Research 11.3 (2008): 281-6.

Clarke, N., et al. "The Spaces and Ethics of Organic Food." Journal of Rural Studies (2008).

Clifford, N.J. and G. Valentine. Key Methods in Geography. Sage Publications, 2003.

Cohen, M. J., and J. Murphy. Exploring Sustainable Consumption: Environmental Policy and the Social Sciences. Pergamon, 2001.

Constance, D. H. "The Emancipatory Question: The Next Step in the Sociology of Agrifood Systems?" Agriculture and Human Values 25.2 (2008): 151-5.

Cronon, W. Uncommon Ground: Rethinking the human place in Nature. W.W. Norton and Company, 1996.

Dahlberg, K. A. "Democratizing Society and Food Systems: Or how do we Transform Modern Structures of Power?" Agriculture and Human Values 18.2 (2001): 135-51.

Desjardins, Ellen. Personal correspondence. (September, 2009).

Desmarais, A.A. "The Via Campesina: Peasant Women at the Frontiers of Food Sovereignty." Canadian Woman Studies 23.1 (2003): 140-145.

Dixey, R. "Gender Perspective on Food and Cooking Skills." British Food Journal 98 (1996): 35-41.

Dubuisson-Quellier, S., and C. Lamine. "Consumer Involvement in Fair Trade and Local Food Systems: Delegation and Empowerment Regimes." GeoJournal 73.1 (2008): 55-65.

Feagan, R. "The Place of Food: Mapping Out the 'Local' in Local Food Systems." Progress in Human Geography 31.1 (2007): 23.

Feenstra, Gail. "Creating space for community food systems: Lessons from the field." Agriculture and Human Values 19.2 (2002): 99–106.

Fitzsimmons, M. "Engaging Ecologies." Envisioning Human Geographies. Hodder Arnold, 2004. 30–47.

Flowerdew, R., and D. Martin. Methods in Human Geography: A Guide for Students Doing a Research Project. Pearson Education, 2005.

FoodShare. FoodShare: Good, healthy food for All! (Accessed: January and February, 2010) Available at: <www.foodshare.net>.

Health Canada. Food Fortification Proposed Policy. Publication. 25 July 2005. Health Canada. (Accessed: June 2009). Available at: <http://www.hc-sc.gc.ca/fn-an/alt_formats/hpfb-dgpsa/pdf/nutrition/faqs-eng.pdf>.

Food School. The Food School. (Accessed: February, 2010). Available at: <www.foodschool.ca>.

Freeman, S. T. "Culturing Food." Gastronomica 6.4 (2006): 99-107.

Frick, M. J., A. A. Kahler, and W. W. Miller. "A Definition and the Concepts of Agricultural Literacy." Journal of Agricultural Education 32.2 (1991): 49-57.

Frick, M. J. "Developing a National Framework for a Middle School Agricultural Education Curriculum." Journal of Agricultural Education 34.2 (1993): 77-84.

Friedmann, H. "Scaling Up: Bringing Public Institutions and Food Service Corporations into the Project for a Local, Sustainable Food System in Ontario." Agriculture and Human Values 24.3 (2007): 389-98.

Friedmann, H. "The Political Economy of Food: a Global Crisis." New Left Review 197 (1993): 29-57.

Goodman, D. "Rural Europe Redux? Reflections on Alternative Agro-Food Networks and Paradigm Change." Sociologia Ruralis 44.1 (2004): 3-16. .

Guthman, Julie. "Fast food/organic food: reflexive tastes and the making of 'yuppie chow'". Social and Cultural Geography 4.1 (2003): 45-58.

Hassanein, N. "Practicing Food Democracy: A Pragmatic Politics of Transformation." Journal of Rural Studies 19.1 (2003): 77-86.

Heintzman, A., and E. Solomon. Feeding the Future. Anansi Press, 2004.

Hinrichs, C. C. "The Practice and Politics of Food System Localization." Journal of Rural Studies 19.1 (2003): 33-45.

Humphrey, J. K., B. R. Stewart, and R. E. Linhardt. "Preservice Elementary Education Majors' Knowledge of and Perceptions Toward Agriculture." Journal of Agricultural Education 35.2 (1994): 27-30.

Jaffe, J. A., and M. Gertler. "Victual Vicissitudes: Consumer Deskilling and the (Gendered) Transformation of Food Systems." Agriculture and Human Values 23.2 (2006): 143-62.

Jarosz, L. "The City in the Country: Growing Alternative Food Networks in Metropolitan Areas." Journal of Rural Studies (2007).

Kickbusch, I. S. "Health Literacy: Addressing the Health and Education Divide." Health Promotion International 16.3 (2001): 289-97.

Knobloch, N. "Factors of Teacher Beliefs Related to Integrating Agriculture into Elementary School Classrooms." Agriculture and Human Values 25 (2008): 529-539.

Laidlaw, S. "Saving Agriculture from itself." Feeding the Future. Ed. Heintzman, A. and E. Solomon., 2004.

Lajoie, D. "Ontario bans school pop." The National Post. Published: Thursday, January 21, 2010.

Lang, Tim. Food policy for the 21st century: Can it be both radical and reasonable? For Hunger-Proof Cities. (1999) M. Koc, R. MacRae, L. Mougeot and J. Welsh. Ottawa: International Development Research Centre: 216-224.

Lang, T., and M. Caraher. "Is there a Culinary Skills Transition? Data and Debate from the UK about Changes in Cooking Culture." Journal of the HEIA 8.2 (2001): 2–14.

Lautenschlager, L., and C. Smith. "Beliefs, Knowledge, and Values Held by Inner-City Youth about Gardening, Nutrition, and Cooking." Agriculture and Human Values 24.2 (2007): 245-58.

Levkoe, C. Z. "Learning Democracy through Food Justice Movements." Agriculture and Human Values 23.1 (2006): 89-98.

LSF. Learning for a Sustainable Future. (Accessed: January and February, 2010). Available at: <www.lsf-lst.ca>.

Lyon, P., A. Colquhoun, and E. Alexander. "Deskilling the Domestic Kitchen: National Tragedy Or the Making of a Modern Myth?." Food Service Technology 3.3-4 (2003): 167-75.

McLaughlin, C., V. Tarasuk, and N. Kreiger. "An Examination of at-Home Food Preparation Activity among Low-Income, Food-Insecure Women." Journal of the American Dietetic Association 103.11 (2003): 1506-12.

Merchant, Carolyn. "Reinventing Eden: The Fate of Nature in Western Culture". Routledge Press, 2004.

Merrifield, Rob. Healthy Weights for Healthy Kids. Rep. no. 7. Mar. 2007. Canadian Commons Health Committee. Sept. 2008 <http://www.ccfn.ca/pdfs/HealthyWeightsForHealthyKids.pdf>.

Mikkelsen, B. E., V. B. Rasmussen, and I. Young. "The Role of School Food Service in Promoting Healthy Eating at School-a Perspective from an Ad Hoc Group on Nutrition in Schools, Council of Europe." Food Service Technology 5.1 (2005): 7-15.

Ministry of Education. Ontario Ministry of Education. (Accessed: January and February, 2010). Available at: <www.edu.gov.on.ca>.

Ministry of Education. Social Studies Curriculum Document. The Ontario Curriculum Social Studies Grades 1 to 6. (2004). Available at: <http://www.edu.gov.on.ca/eng/curriculum/elementary/grades.html>.

Ministry of Education. Science and Technology Curriculum Document. The Ontario Curriculum Grades 1-8. (2007). Available at: < http://www.edu.gov.on.ca/eng/curriculum/elementary/grades.html>.

Ministry of Education. Health and Physical Education Curriculum Document. The Ontario Curriculum Grades 1-8 Health and Physical Education. (2010). Available at: <http://www.edu.gov.on.ca/eng/curriculum/elementary/grades.html>.

Morgan, K., and J. Murdoch. "Organic Vs. Conventional Agriculture: Knowledge, Power and Innovation in the Food Chain." Geoforum 31.2 (2000): 159-73.

Morgan, K., and R. Sonnino. The School Food Revolution: Public Food and the Challenge of Sustainable Development. Earthscan, London, 2008.

Murdoch, J., T. Marsden, and J. Banks. "Quality, Nature, and Embeddedness: Some Theoretical Considerations in the Context of the Food Sector." Economic Geography 76.2 (2000): 107-25.

Niles, D., and R. J. Roff. "Shifting Agrifood Systems: The Contemporary Geography of Food and Agriculture; an Introduction." GeoJournal 73.1 (2008): 1-10.

OAFE. Ontario Agri-Food Education Incorporated. (Accessed: January, February, 2010) Available at: http://www.oafe.org/.

O'Sullivan, G. "History in the Making: Older Canadian Women's Food-Related Practices." Food and Foodways 16.1 (2008): 63-87.

Peace, A. "Barossa Slow: The Representation and Rhetoric of Slow Food's Regional Cooking." Gastronomica 6.1 (2006): 51-9.

Petrini, C. Slow Food: The Case for Taste. (2003) Columbia University Press.

Physical and Health Education Canada. PHE Canada. (Accessed: January and February, 2010). Available at: <www.phecanada.ca/eng/about/>.

Pietrykowski, B. "You are what You Eat: The Social Economy of the Slow Food Movement." Review of Social Economy 62.3 (2004): 307-21.

Pollan, M. In Defense of Food: An Eater's Manifesto. (2008) Penguin Press.

Robinson, R. N. S., and P. E. Barron. "Developing a Framework for Understanding the Impact of Deskilling and Standardisation on the Turnover and Attrition of Chefs." International Journal of Hospitality Management 26.4 (2007): 913-26.

Roff, R. J. "Shopping for Change? Neoliberalizing Activism and the Limits to Eating Non-GMO." Agriculture and Human Values 24.4 (2007): 511-22.

Sanne, C. "Willing consumers—or Locked-in? Policies for a Sustainable Consumption." Ecological Economics 42.1-2 (2002): 273-87.

Scrinis, G. "From Techno-Corporate Food to Alternative Agri-Food Movements." Local-Global: Studies in Community Sustainability 4 (2007).

Scrinis, G. "On the Ideology of Nutritionism." Gastronomica 8.1 (2008): 39-48.

Searles, E. "Food and the Making of Modern Inuit Identities." Food and Foodways 10.1 (2002): 55-78.

Selfa, T., R. A. Jussaume, and M. Winter. "Envisioning Agricultural Sustainability from Field to Plate: Comparing Producer and Consumer Attitudes and Practices Toward 'environmentally friendly' food and Farming in Washington State, USA." Journal of Rural Studies (2007).

Short, F. "Domestic Cooking Skills-what are they." Journal of the HEIA 10.3 (2003): 13-22.

Smithers, J., J. Lamarche, and A. E. Joseph. "Unpacking the Terms of Engagement with Local Food at the Farmers' Market: Insights from Ontario." Journal of Rural Studies (2008).

Sustain. Building a Sustainable Community Food Hub. (Accessed: February 2010). Available at: <.http://www.sustainweb.org/pdf/Building_Sustainable_Community_Food_Hub.pdf> (2009).

The Green Barn. The Stop's Green Barn. (Accessed: January and February, 2010). Available at: <www.thestop.org/green-barn>.

The Green Barn Program Brochure. Sustainable Food Systems Education (Accessed: January and February, 2010). Available at: <http://www.thestop.org/sustainable-food-systems-education>.

The Stop. The Stop Community Food Centre. (Accessed: January and February, 2010). Available at: <www.thestop.org>.

The Working Group on Environmental Education (Ministry of Education). Shaping Our Schools Shaping Our Future: Enviromental Education in Ontario Schools. (2007). Available at: < http://www.edu.gov.on.ca/eng/curriculum/elementary/grades.html>.

Thrift, N. "Summoning Life." Envisioning human geographies (2004): 81–103.

Tremblay, M., M. Shields, M. Laviolette, C. Craig, I. Janssen and S. Connor Gorber. Canadian Health Measures Survey. Statistics Canada, (2010) Available at: http://www.statcan.gc.ca/pub/82-003-x/2010001/article/11065-eng.pdf

Valentine, G. '"Tell me about..."...:using itnerviews as a research methodology'. In: (eds.) R. Flowerdew and D. Martin Methods in Human Geography: A Guide for Students Doing a Research Project. (1997) Pearson Education.

Vanderkooy, Pat. Email communication. (Accessed: July 10th, 2009)

Vileisis, Ann. Kitchen Literacy. (2008) Washington: Island Press.

Ministry of Education. Email communication. (Accessed: July 10th 2009).

Wekerle, G. R. "Food Justice Movements: Policy, Planning, and Networks." Journal of Planning Education and Research 23.4 (2004): 378.

Welsh, J. and R. MacRae. "Food Citizenship and Community Food Security: Lessons from Toronto, Canada." Canadian Journal of Development Studies 19.1 (1998): 237-256. OUT OF PRINT. Available at: http://de.ryerson.ca/DE_Courses/uploadedFiles/6054_Community/CFNY404/Modules/Module_05/CJDS%20Paper%20Welsh%20and%20MacRae.doc

Wilkins, J. L. "Eating Right here: Moving from Consumer to Food Citizen." Agriculture and Human Values 22.3 (2005): 269-73.

Winson, A. "School Food Environments and the Obesity Issue: Content, Structural Determinants, and Agency in Canadian High Schools." Agriculture and Human Values 25 (2008): 499-511.

Winson, A. "Spatial colonization of food environments by 'pseudo food' companies: Precursor of a health crisis." In (eds.) M. Koc *Interdisciplinary perspective in food studies*. Toronto: McRaw-Hill Ryerson Press: 71-82.

Winter, M. "Embeddedness, the New Food Economy and Defensive Localism." Journal of Rural Studies 19.1 (2003): 23-32.

Zimmerer, K. S. "Agriculture, Livelihoods, and Globalization: The Analysis of New Trajectories (and Avoidance of just-so Stories) of Human-Environment Change and Conservation." Agriculture and Human Values 24.1 (2007): 9-16.

APPENDIX A: INTERVIEW QUESTIONNAIRE

Interview Questions for Teachers:

Factors	Questions
Context	Is it important to teach young people about food and agriculture?
	If so, why?
	Is it important that children are taught food skills in school?
	If so, why?
	In what ways (if any) do you integrate food and agricultural topics into your classroom?
	In what ways (if any) would elementary students benefit from being taught about food and agriculture?
	What are some of the major determining factors in incorporating food/agriculture into your classroom?
	Approximately how much time is spent discussing food/agricultural topics in your classroom? (Response can be given in percentages, or minutes/hours)
School	In what ways does your school provide you with the support and resources necessary to incorporate food/agricultural topics into your classroom?
Curriculum	Has the perceived importance of food and agricultural education increased, decreased or stayed relatively the same during your time as a teacher?
	If it has changed, in what ways have you noticed the changes?
	Do you feel as though the Ministry of Education adequately supports the inclusion of food/agricultural education in the curriculum?
	If so, how? If not, what could be improved upon?
Parents	Is there interest from parents regarding the presence of food and agricultural topics in your classroom?

Factors	Questions
	Has this increased, decreased or stayed relatively the same during your time as a teacher?
Student Learning	Do you know if your students understand how/where their food is produced? (i.e.: that milk comes from cows, that carrots grow in the ground, etc.)

Interview Questions for Parents:

Factors	Questions
Context	Is it important for you that your children are taught about food and agriculture?
	If so, why?
	Is it important that your children are taught food skills in school?
	If so, why?
	In your opinion, has agricultural knowledge and/or food skills/knowledge become a more important or less important skill-set for your children?
School/ Teachers	Does your child's school incorporate food and agricultural topics into their classrooms?
	Does your child's teacher appear to incorporate food and agricultural studies into their classroom?
Curriculum	Do you feel the provincial curriculum adequately covers the study of food and agriculture in their curriculums?
Student Learning	Do you know if your child understands how/where their food is produced? (i.e.: that milk comes from cows, that carrots grow in the ground, etc.)
	Does your child demonstrate an interest in food and/or agriculture at home?

Factors	Questions
	Does your child share any knowledge of food/agriculture acquired at school with you at home?

Interview Questions for School Board Officials:

Factors	Questions
Context	Is it important to teach children about food and agriculture?
	If so, why?
	Is it important that children are taught food skills in school?
	If so, why?
	How important is it for your school board to teach students about food and agriculture?
	What is the greatest determining factor in incorporating food/agriculture into the classrooms within your district?
Curriculum	Has the perceived importance of food and agricultural education increased, decreased or stayed relatively the same in the curriculum, during your time at the UGDSB?
Teachers/Faculty/Support Staff	Is there interest from teachers regarding the presence of food and agricultural education in the classroom? Has this increased, decreased or stayed relatively the same during your time in the school district?
	In what ways does the school board support teachers who wish to incorporate food/ agriculture into their classrooms?

Factors	Questions
Student Learning	Do you know if students in your school district generally understand how/where their food is produced? (i.e.: that milk comes from cows, that carrots grow in the ground, etc.)

Interview Questions for the Ontario Ministry of Education:

Factors	Questions
Context	Is it important to teach children about food and agriculture?
	If so, why?
	Is it important that children are taught food skills in school?
	If so, why?
Curriculum	What are some of the major determining factors in incorporating food/agriculture into the elementary school curriculum?
	Has the perceived importance of food and agricultural education increased, decreased or stayed relatively the same in the curriculum during your time?
Teachers/School Boards	Is there interest from teachers/school boards regarding the presence of food and agricultural education in the curriculum? Has this increased, decreased or stayed relatively the same?
	In what ways does the curriculum support teachers who wish to incorporate food/ agriculture into their classrooms?
Parents	Is there interest from parents regarding the presence of food and agricultural education in the curriculum?

Factors	Questions
Government/Producers/Industry	Has there been interest from other Ministries (OMAFRA, etc.) to incorporate food and agricultural education into the curriculum?
	Has there been interest from producer groups to incorporate food and agricultural education into the curriculum? (i.e.: the NFU, Dairy Producers of Ontario, etc.)

Interview Questions for OMAFRA/Health Canada:

Factors	Questions
Context	Is it important to teach children about food and agriculture?
	If so, why?
	Is it important that children are taught food skills in school?
	If so, why?
Curriculum	Has there been any interest from OMAFRA/Health Canada in incorporating food and agricultural topics into the elementary school curriculum?
	If so, why? If not, why not?
	What do you believe are some of the greatest determining factors in incorporating food/agriculture into the elementary school curriculum?
	Has the perceived importance of food and agricultural education increased, decreased or stayed relatively the same to OMAFRA/ Health Canada during your time?
Teachers/School Boards	In what ways, if any, does OMAFRA/ Health Canada support teachers who wish to incorporate food/agriculture into their classrooms?

Factors	Questions
Government/Industry	Has there been expressed interest to OMAFRA/Health Canada from other Ministries (Ministry of Education, etc.) to incorporate food and agricultural education into the curriculum?
	Has there been expressed interest to OMAFRA/Health Canada from any industry to incorporate food and agricultural education into the curriculum?

Interview Questions for Relevant Community Members/ Organizations:

Factors	Questions
Context	Is it important to teach young people about food and agriculture?
	If so, why?
	Is a basic understanding of food and agricultural systems an important part of a child's education?
	Is a basic level of food skills a necessary component of a child's education?
	If so, why?
	How would elementary students benefit from being taught about food and agriculture?
The School System (Curriculum, Classrooms, Teachers, etc.)	Do you believe formal educational institutions adequately address food and agricultural topics for students?
Government/Industry	Have you received any official support from government agencies or ministries?

APPENDIX B:

Wilfrid Laurier University
Interview Information and Consent Form

An Apple A Day: The Status of Children's Food Knowledge and Skills in Ontario

Principal Investigator: Shannon Kornelsen MA Candidate
(Dr. Alison Blay-Palmer, Supervisor)

We are seeking your participation in a research project examining the current Ontario curriculum and whether or not it supports the inclusion of food and agricultural topics into elementary school classrooms. Using the Upper Grand District School Board as a focus, the research question addressed in this project is: in what ways does the provincial curriculum as it currently exists, lend support and resources to teachers who wish to integrate food and agricultural topics into their classrooms?

The primary goal of this research is to determine what some of the most common barriers and opportunities are when attempting to include food and agricultural topics into the classroom. Those barriers and opportunities may form the basis of a report made to the Ontario Ministry of Education and the Upper Grand District School Board. This study will include up to fifty interviews with teachers, parents, school board officials, government actors and community groups. As a participant we will ask you to share insights based on your experiences with the educational system by answering a series of interview questions. We have designed the questions so we can complete the interview within an hour.

There are no known risks associated with participating in this study. The anticipated benefits of this study include a better understanding of the role that the curriculum plays in supporting and providing resources to teachers, as well as a better understanding of both the barriers and opportunities that exist when attempting to educate students on food and agricultural topics. You may decline the use of identifiers, which includes publishing any information that would allow you to be identified. You may also choose whether or not you consent to being quoted directly, however you can remain anonymous and still consent to direct quotations. All data will be presented in aggregated form, or reported in a way that will protect the source of the information. A transcript of the interview audio tapes will be created for the purpose of determining findings. Only the Researcher will be involved in transcribing. The data collected will be stored securely in locked facilities. The only person that will have access to the files will be the Researcher and the Supervisor. All data collected from this research will be destroyed after five years. The research results will be published in fulfillment of the Researcher's thesis requirements. The results may also be presented at conferences and published in journal articles. Participants may contact the Researcher to obtain a copy of the findings which will be available by May 2010. Participants may email: korn7100@wlu.ca if they would like a copy.

Your participation in this study is voluntary; you may decline to participate. If you decide to participate, you may withdraw from the study at any time. You are not obliged to answer any questions that you find objectionable or which make you feel uncomfortable. Your signature below confirms that you understand and agree to participate in an interview, and that you agree to have the interview audio recorded. There is also an opportunity to consent to using identifiers, and to be directly quoted. It also confirms that you have read this Letter of Information and have had any questions answered to your satisfaction and will keep a copy of this letter for your records.

If you have any questions or concerns at any time about the study or the procedures, please contact:

Dr. Alison Blay-Palmer, Supervisor
Assistant Professor
Department of Geography and Environmental Studies
Wilfrid Laurier University
Waterloo, ON N2L 3E5
Tel: (519) 884-0170, extension 2604
E-mail: ablaypalmer@wlu.ca

This project has been reviewed and approved by the University Research Ethics Board. If you feel you have not been treated according to the descriptions in this form, or your rights as a participant in research have been violated during the course of the project, you may contact:

Dr. Bill Marr, Chair
University Research Ethics Board
Wilfrid Laurier University
Waterloo, ON N2L 3E5
Tel: (519) 884-0170, extension 2468
E-mail: bmarr@wlu.ca

Name: _____ Date: _____

Signature: _____

By initialing this statement below,
____ I am granting permission for the researcher to use an audio recorder
____ I am granting permission for the researcher to identify me by name
____ I am granting permission for the researcher to use quotations