

Advancing Youth Education on Food and Food Systems to Increase Food Literacy

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Abstract

The contemporary industrial food system has purposefully distanced eaters from food's origins. This has created a lack of knowledge not only about where food comes from, but also about the food system's impacts on our well-being and that of the environment. With eaters having undergone this purposeful "deskilling", the popularity of food education programs for children and youth has grown in recent years, with an intent to re-skill eaters and (re)create a food literate population. This paper seeks to examine the role of such food education programs in facilitating food literacy through a case study of Food Leadership for Youth (FLY) – a youth community food education program at one of Toronto's most well-known community food centers.

Grounded in qualitative research comprised primarily of interviews, participant observation, and a literature and document review, this paper first examines the various interpretations of the somewhat contentious term "food literacy" and puts forth two primary food literacy paradigms. These are an individual, consumer-driven and functional food literacy grounded in healthy choices and behavior modification within the current market system, and a more critically engaged, politically and socially aware food literacy that facilitates participation in disrupting the current food system rather than navigating it for individual benefit. Benchmark measures of food literacy are also established, which are used to assess the FLY program's impact on participants' food literacy.

Using a mixed methods approach to qualitative research, this paper evaluates the FLY program's ability to facilitate food literacy in its participants within the context of the two identified paradigms, and also considers whether the program is meeting its internally developed goals. The results indicate that FLY's success is predominantly in fostering the individual, functional food literacy of neoliberal consciousness. Given that FLY's internal objectives encompass both food literacy paradigms established in this paper, FLY fails to fully accomplish its layered objectives. The FLY case study also considers the challenges, barriers, and possible opportunities within the program model. This research is then situated in the presumed transition from food education to food literacy to wider food systems change, with consideration of whether the type of food literacy imparted through the FLY program can offer some wider impact in food systems change. The findings of this paper can be used as a resource for establishing and improving food education programs where food literacy is the goal. They provide insight into the complexities of food literacy and the challenges of facilitating food education programs that move beyond teaching healthy choices and individual behavior modification to a larger reskilling and reclamation of the food system.

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Foreword

The Master of Environmental Studies program gave me a figurative blank slate in the form of my plan of study, where I was offered the freedom and flexibility to pursue my interest in understanding the contemporary industrial food system and possible alternatives and changes. I came to the program because I wanted to explore the multiple perspectives of how to create a food system that offers all citizens food that is healthy, nutritious, affordable, respectful of the environment, and produced in a sustainable manner. My two years of coursework, independent studies, field experiences, and original research provided me with the intellectual space, tools, and confidence needed to pursue a topic that until 2012 I did not realize was possible to study quite the way I wanted to – until I enrolled in the MES program.

As I navigated my MES program and volunteered with food and environmental education efforts at The Stop and Evergreen Brickworks, I also sought to understand the role and value of food education in shifting our conception and perception of food as an alternative to that produced in the industrial model. I questioned how to overcome the too prevalent phenomenon of consumer deskilling in the modern food system, and how to facilitate food education and food literacy in my generation and those younger than me. I also began to question what exactly comprised food education, and what exactly was meant by food literacy.

This major research paper draws primarily on the last component of my plan of study: strategies for food education and food literacy. My paper contributes to the conversation around food literacy by dissecting exactly what is meant by this newly popular term, and by delineating the various food literacy paradigms present in academic and organizational literature. My paper also pinpoints benchmark measures of food literacy, and presents a case study of a food education program in a prominent Toronto community food center. I question whether food education such as that offered in the Food Leadership for Youth (FLY) program can actually instill food literacy – and to what extent – and I consider the barriers that can exist when developing effective food education programming for food literacy. I also ask whether food literacy can contribute to wider food systems change on some level, and whether the FLY program model is the most ideal for imparting food literacy – all questions that interest the citizen, volunteer educator, and food lover in me.

I chose to study The Stop's FLY program because of the time I had invested as a volunteer. I spent countless hours prepping food and recipes, collaborating with the program coordinator to brainstorm curriculum ideas, and conversing with participants over hot pans, produce-covered cutting boards, and delicious meals, and I wanted to know what I was accomplishing. Clearly, the participants were enjoying the program, and we spent enlivened Wednesday afternoons cooking, laughing, and sharing communal meals. But beyond that, what was the program doing? What were the girls getting out of it?

As I completed my research and drafted this paper, I found that while my paper may not provide all the answers to grander questions around food education, food literacy, and wider food systems change, what it can do is contribute to the conversations and begin to fill in some of the

gaps that have yet to be fully explored. Food education, and food literacy in particular, is a relatively new subject in literature and practice, and it was really only in the past year as I wrote my research proposal and collected my data that any substantial papers were published on food literacy in Canada (the 2013 Conference Board of Canada paper, the 2013 Locally Driven Collaborative Projects/Food Skills Ontario paper, and the 2014 Sustain Ontario draft paper are three significant publications that were released on food literacy during the course of my research). Given the rather recent focus on these topics, there is still much to be done to answer the questions of what food education contributes to food literacy, what kind of food literacy is being gained, and what this means for our food system in general. While my paper may not hold all the answers, it offers a piece to the puzzle, and expands the conversation around food literacy that has become so popular in the past year.

This paper also contributes to the fulfillment of my MES degree requirements and the learning objectives outlined in my plan of study. My area of concentration is defined as “reclaiming the food system through sustainability and education”, and my third component (strategies for food education and food literacy) is composed of four learning objectives: to become familiar with the causes and effects of consumer deskilling by the current food system; to develop an in-depth understanding of education strategies aimed at communities and youth; to learn more about how nutrition, food, and food systems education can address diet-related health problems in youth, empower communities to reconnect to their food and its source, and assist in a shift towards a more sustainable food system; and to explore the links between food systems education, equality, justice, and capacity building, and the transformative efforts of food education in communities. By studying the types of food literacy facilitated in participants of a community-based youth food education program, my research has directly contributed to my understanding of food education strategies and the role of food education in increasing food literacy. This further advances the fulfillment of all four of my food education and food literacy-based learning objectives outlined above. Additionally, my research and major paper is also tied to my components around building sustainable food systems and understanding alternative food movements, for food education at The Stop is carried out with the intent to contribute to the creation of sustainable food systems, while participating in alternative food networks. What I learned during the course of my research – from the trials of a grassroots community food education effort to the driving principles of food education as part of the alternative food movement – directly ties to learning objectives 1.3, 2.1, and 2.2 within my first two plan of study components.

More than anything, the less tangible result of this paper is the clarity I have gained about the inherent complexities of seeking change. Change is not linear, nor is it simple. Food education is not necessarily a straightforward answer to instigating change in the food system. Food literacy is not a cut and dry concept, nor is it possible to foster without significant resources, effort, and ideal circumstances. The FLY program facilitates food literacy, but not every type of food literacy. It educates its participants, but not without barriers or challenges. The ties between food education, food literacy, and wider food systems change are not as smooth as governments or academics may like to assume, and it is this that I take away from my paper. Nevertheless, the FLY program serves as an important example of food education and food literacy; an example from which other programs may learn. It offers lessons for future efforts of a similar type – efforts which continue to increase as interest in the value of food literacy grows.

Chapter One: What's Food Education and Food Literacy Got to Do With It?

Of all the ways to interact with our environment, food is perhaps the most universal medium. Throughout the course of our day, the vast majority of us consume at least one meal, and often many more. We are all shaped by the food we eat, and how we choose to construct or manipulate the food chain affects us daily. As North Americans, the way we eat has evolved over time. The current food system is a far cry from that which we experienced only a few generations ago, for there now exists a reliance on fossil fuels, factories, global distribution systems, vast monocultures, corporate concentration, and concentrated animal feeding operations (CAFOs) to facilitate growth and create demand for high-profit manufactured foods. Unquestionably, the food system has undergone remarkable change through the takeover of industrial agriculture and subsequent corporatization, and these changes impact what we eat, why we eat, and how we eat.

What do we know about food now? What knowledge have we retained amongst this food evolution, and what does it mean for the future of our food system? The dominant North American food system distances consumers from food's origins, and conceptualizes food as a commodity for profit. These tactics have resulted in a widespread lack of knowledge demonstrated by both children and adults, not only about where food comes from but also about the food system's impact on health and the environment. With eaters having undergone what Jaffe and Gertler (2006) term a "deskilling", the popularity of food education programs has grown in recent years. These include everything from farm to school programs to cooking education programs and school gardens. Government, too, has increased its focus on the re-skilling and re-education of consumers, albeit using more conventional tactics rooted in the individual behavior modification approach to consumer education, such as publishing updated food and activity guides. Non-profit organization and community programs are also gaining

ground, and an important question centers on what they are contributing to the re-skilling of eaters and the burgeoning attempts to (re)create a food literate population. Perhaps more compelling a question is whether food education to promote food literacy and re-skill eaters can subsequently promote larger change in the food system, which remains a rather widespread assumption in both literature and practice.

The Evolution of Industrial Food

How we eat now differs greatly from how we used to eat. The current systems of food production, manufacturing, distribution, and retailing present in Canada and other developed countries are the result of the Western world's movement to industrialize throughout the late 19th and 20th centuries. As countries pursued growth, they adopted an industrial rationality where nature was viewed as "an unproblematic human laboratory" (McMichael 21), and food was a central facet of this propensity toward industrialization, capitalism and – eventually – neoliberalism. Food that had previously been intimately tied to local ecology and culture "became an input in urban diets and industrial processing plants" (McMichael 21), characterized by commercialized, capital-intensive, technology-driven practices controlled by large agri-food conglomerates and global sourcing strategies. Throughout the twentieth century, food functioned as a microcosm to demonstrate the influence of capitalism and globalization, with processes and practices that came to anchor "a system of global profiteering in food products, a system in which food travels from farm gate to dinner plate an average of two thousand miles" (McMichael 23). Consequently, over the past fifty years the number of actual farmers has declined in many developed countries, including 86% in Germany, 64% in the United States, and 59% in the United Kingdom (Lang 732). In Canada, the 2011 Census confirmed that the number of Canadian farms had decreased by 10% in the five previous years, while average farm size

concurrently increased (Waldie 2012), demonstrating the consolidation of agriculture and the decline of smaller farms in the name of productivity and efficiency.

With the influence of industrial methods and the strength of capitalist markets, the dominant agri-food system has been defined by “the large-scale industrial production of cheap, durable, standardized, uniform, and undifferentiated products destined for global markets and the food manufacturing sector” (Scrinis 118). Emphasizing economies of scale and agricultural specialization, there has been a concurrent rise in the use of pesticides and fertilizers, monocultural cropping systems, and intensive animal production practices. Within this evolution of food is a notable shift in power from the eater and consumer to corporations as self-provisioning has declined. Having consolidated ownership and control in the food system, corporations exercise power not only over farmers but also over consumers, particularly as a parallel power shift has taken place from food manufacturers to food retailers. By extension, then, large food retailers in the food business also wield power and influence over how consumers engage with the food system. McMichael (2000) notes that corporate centralization in food processing and agriculture should be unsurprising given that agriculture constitutes 65% of the global economy (25). Yet, this concentration of power presents problems, for it removes control from consumers and instead places it with those whose “goals are economic rather than ecological in nature” (Stinson 10).

The Impacts of Industrial Food

While it is true that the changes to our food system now offer the consumer the ultimate in convenience with almost limitless choice, the impacts of current practices cannot be dismissed. It is common to visit a supermarket and purchase inexpensive, value-added food products – so much so that the percent of our budget spent on food has decreased from 28% in the late 1960s

to 17% in recent years, with an even stronger decrease witnessed in the United States (Statistics Canada 2009; USDA ERS 2013). The true costs of food production are excluded from the low prices found on supermarket shelves, instead impacting environmental and personal health due to current food production and consumption. Deterioration of land and soil is common because of intensive animal farming and gross monocultures, and externalized costs are also present in pollution from chemical inputs and excessive water, energy, and oil demands. These environmental externalities do not even begin to explore the health and lifestyle externalities that eaters face, thanks to the increased marketing of industrialized food products and the inability of some demographics to access healthy food at fair prices, all contributing to higher incidences of lifestyle diseases and rising obesity rates.

In the interest of driving profit in the capitalist food system, there has been a widespread normalization of processed foods produced with industrial methods that offer reduced nutritional value. A recent report on youth food literacy in Ontario asserts, “Canadians tend to eat away from home more often than in the past, consume high amounts of processed food, and tend to eat together less often” (Desjardins et al. 2). As a result, youth are growing up in an environment that normalizes and promotes highly processed food (Desjardins et al. 61). Today’s eaters are primarily exposed to an industrial food landscape composed of packaged and processed food products, prepared meals, and meals outside the home, many of which contain cheap inputs and unhealthy additives to fuel the industrial food system. As a capitalist food system has encouraged companies to seek profit through processed foods since “added sugars and fats...are cheaper to manufacture, transport, and store than are perishable meats, dairy products, and fresh produce” (Drewnowski and Barratt-Fornell 162), these foods have become widespread and cheaply available across North America. Moreover, children and youth strongly

influence purchases made by parents and constitute the future adult market for food, making children an important demographic for food advertisers (Institute of Medicine 138). Food marketing to children to promote industrial food products has thus become a \$12.7 billion industry (Ebbeling et al. 478), with approximately half of all commercials during children's television programming being for branded foods and drinks high in fat, sugar, salt, and calories, with low nutritional value (Institute of Medicine 22).

As the food industry spends billions on advertising to market these value-added products and influence children's understanding of what food ought to be, one of the many externalities of the industrial food system has been a rapid rise in childhood obesity, which is associated with low intake of fruits and vegetables and high intake of fast foods, sweets, and sugar sweetened beverages (Vallianatos, Gottlieb, and Haase 419). Canada now ranks eighth among OECD countries in obesity (OECD 2013), and between 1978 and 2004, the combined prevalence of overweight and obesity among Canadian children aged two to seventeen increased from 15% to 26%, with close to one-third of youth aged twelve to seventeen being overweight or obese (PHAC 2012; Sustain Ontario 2013, 2). Yet, these statistics are unsurprising given the industrial food system's interest in securing widespread preference for low-nutrient, energy-dense prepared foods in children. Disconcerting to public health officials for its deleterious effects to children's physical health, childhood obesity contributes to conditions such as high cholesterol, high blood pressure, type two diabetes, coronary heart disease, certain cancers, sleep apnea, and joint problems, with these conditions now presenting in children instead of remaining the exclusive domain of adults (NHLBI 2012; PHAC June 2011). As obesity rates rise in North America, the costs to our nations' health care systems are also becoming more significant. Between 2000 and 2008, the annual cost of obesity in Canada increased from \$3.9 to \$4.6 billion (PHAC June

2011a), illustrating that the industrial nature of the contemporary food system has externalized the costs of production not only to the environment, but to human health as well.

Deskilling the Industrial Food Consumer

In order to facilitate corporate concentration, high profits, and sustained growth in large agribusiness and food manufacturing, it has been a necessary and successful strategy to encourage consumers to disassociate the origins of food from its ultimate form, while touting the benefits of highly processed goods that offer companies the most profit at the expense of eaters' health and food literacy. The contemporary food system has normalized food as an abstraction such that children “[no longer] view food as something from nature that [has] ecological or nutritional significance” (Barton et al. 1177). There is wide consensus among writers, researchers, and practitioners in the area of food studies that the contemporary industrial food consumer has been deskilled through a combination of urbanizing society, a decline in home- or local-based food production, and a shift toward processed and convenience foods – all supported by large agri-business and food retailers and manufacturers. At a superficial level, then, it is widely recognized that citizens do not know enough about food, and that basic knowledge of the natural environment and its interrelated systems has declined over time (Kimura 465; Hubert, Frank, and Igo 525). However, it is essential to question how this consumer deskilling has evolved, for it has not been without the agri-food industry. In reviewing Canadians' cooking and food preparation skills, Chenell (2010) reminds us that “significant and planned restructuring within the agri-food industry and food systems has resulted in both worker deskilling in food manufacturing and food-related consumer deskilling which...has and will have significant consequences on consumer choice, diet, and health” (11). Jaffe and Gertler support this assertion, noting that “the agro-food industry has spent billions on marketing campaigns to persuade and

re-educate consumers for its own purposes” (144). This shift towards the packaged and the processed and away from unrefined and nutritionally sound has been “partially obscured by the endlessly creative ways [food] is refined, mixed, colored, flavored, and packaged” (Weis 115), ultimately benefiting powerful food and manufacturing corporations while creating a disconnect for consumers between food and its source.

Skills of food selection, cooking, and nutrition were traditionally learned through informal family interactions, as parents and extended family members passed down food knowledge to children (Jaffe and Gertler 147; Chenell 13). With the takeover of industrial food and the popularity of novel, processed food products, “the importance of cooking skills has gradually diminished from what was once considered an important household skill to one of lesser significance due to the ubiquity and marketing of industrially-processed convenience food. Food deskilling has reached a point where it is commonly assumed that the younger generation no longer knows how to manage in a kitchen” (Desjardins et al. 1). The food industry has a vested interest in altering consumers’ preferences to create a market for its ever-changing array of novel food products that rely on cheap and subsidized inputs that sell for a high profit, while ensuring control over one’s food remains out of the hands of growers and eaters. It appears that one of the chief goals of industrial food production is to develop a population of passive food consumers, making the path from how food is grown and processed to its final state on the dinner table “a story...both unknown and uninteresting to consumers” (Wilkins 270).

The largest actors in the food system have deskilled and confused consumers so that it is no longer clear what constitutes healthy or where food comes from, and this distance between where food originates and how it is ultimately consumed “represents [consumers’] separation from the knowledge of how and by whom what they consume is produced, processed, and

transported” (Kloppenburger, Hendrickson, and Stevenson 2). The food industry’s attempt to disconnect consumers from their food and create a process of deskilling is with calculated intent, for “the food industry is concerned – with reason – that consumers would react negatively if they had a more complete and realistic picture with respect to production, processing, and marketing practices” (Jaffe and Gertler 152). Knowledge of not only food but also of the contemporary food system has been lost and purposefully replaced by agribusiness, for “much of the power of agribusiness ultimately depends on farmers and consumers not knowing” (Kloppenburger, Hendrickson, and Stevenson 6). This use of power to deskill is supported through grand marketing schemes that imbue food retailers and manufacturers with a sense of trust, connection, and authenticity (Jaffe and Gertler 143). Consequently, it becomes difficult for consumers to know not only where their food comes from, but it also discourages questions about whether our food is safe, healthy, sustainable, or nutritious.

While the origin of consumer deskilling can be found in the purposeful action of the agribusiness industry, government is often viewed as complicit in this deskilling, for children no longer receive life skills in cooking, healthy eating, or knowing where one’s food comes from. In many regions, “nutrition is often regarded as an extra-curricular topic rather than a part of curriculum” (Cho and Nadow 431), causing some to assert that “schools and the state are colluding in this process, teaching computer skills but not life skills” (Jaffe and Gertler 147). As noted in a report on Ontario youth food literacy, deskilling is in part an effect of a “culinary transition”, for “home economics and culinary skills have been curtailed in the Ontario school curriculum over the past three decades” (Desjardins et al. 2). When nutrition and food related course content does exist in Canadian curricula, it is often optional rather than a core

requirement, and typically taught with a focus on technology and food production from an industry or commercial perspective (Chenell 13).

Food Education to Reskill Youth

In response to the effects of deskilling, there has been a growth of food education programs both within and outside of schools. These education programs operate on the expectation that building food literacy through food education will reskill participants and allow them to reclaim the food system in some form. Food education itself is understood to include everything from nutritional science and cooking skills to gardening, farming, and increasing one's awareness of the food system. It is "increasingly proposed as a way to solve food-related social problems" and "has been linked closely to the idea of progressive food activism" (Kimura 466). These are lofty goals for a small but increasing movement, particularly given that food education is also often pursued by the private sector (Guthman 2008) and food education "tends to emphasize consumer choice...and self improvement" (Kimura 466).

Food education is treated as a precursor to food literacy and a means to reskill populations. That is, an assumption exists that food education will encourage a food literate population, which is believed to be integral not only to achieving public health goals (Kimura 467), but also to supporting a shift in the food system by facilitating participants' recognition of the effects of industrial transformation and the pursued dichotomy between food and nature. In this regard, food education is undertaken with the same motivation as ecological education, which when treated as a participatory act in either schools or communities "can reorient our anthropocentric focus...to one that acknowledges the rest of the living world and our inalienable connection to it" (Ross and Gruenewald 7). It is worth noting, then, that this discussion around food literacy and food education often implies a presumed relationship between food literacy and

food systems change. For example, Jaffe and Gertler assert that “skilled consumers will be vital to the positive transformation of food systems” (158), Goodman and DuPuis argue that consumers can challenge the production system once “they become ‘conscious’ or aware of the socio-political impacts of the system” (7), and Howard and Brichta note in their report on food literacy in Canada that “improved food literacy will positively impact environmental sustainability” (iii). Nevertheless, a causational relationship between food literacy and wider food system change has not been clearly evidenced in the literature.

What do current food education efforts look like? Often grounded in experiential learning opportunities, government, education, health, and community groups seek to provide food literacy development opportunities so that children and youth can learn to enjoy growing, preparing, and eating healthy food, and reskill themselves in the food system (Howard and Brichta 2013). Though food education programs take many forms, some of the most popular include farm to school programs, school gardening programs, and cooking-based programs. All maintain common broad goals of reskilling their participants and promoting some level of food literacy. Farm to school programs began in the late 1990s in the United States, and have since expanded not only regionally throughout the U.S. but also into Canada through new organizations like Farm to Cafeteria Canada (Kloppenburger, Wubben, and Grunes 2007; Farm to Cafeteria Canada 2012). At its core, the farm to school program is an educational model for food learning that connects schools with local farms so that schools may serve local and healthy foods in the lunchroom while supporting small and medium sized local and regional farmers. Aside from connecting schools with local farmers to serve healthy, farm-fresh meals and provide a market to farmers, most farm to school programs include a selection of educational activities such as in-class produce tasting, field trips to farms and farmers’ markets, farmer visits to

classrooms, and incorporating food issues into the existing curriculum (Kloppenburger, Wubben, and Grunes 3; Izumi, Alaimo, and Hamm 87).

Primarily targeting elementary school students, school gardens have become a growing part of food education as a way to help students link concepts of food, nutrition, health, nature, and environment. Gardening programs for students have become particularly popular because “today’s children lack experience with natural ecosystem complexity” (Blair 17) and students demonstrate a lack of awareness of where food comes from while also suffering from a lack of opportunity to appreciate food outside of the industrial agricultural complex. Through interactive learning and outdoor engagement, “gardens ground children in growth and decay, predator-prey relations, pollination, carbon cycles, soil morphology, and microbial life” (Blair 17), which stands in contrast to industrial food and the separation children experience between the origins of food and the products sold in supermarkets and restaurants. School gardens as a proposed method of increasing food literacy allow students to learn “how a plant goes from seed to plate” (Blair 18), as students are introduced to local and sustainable food systems and children consume the food they grow.

Cooking-based food education programs follow many similar goals of increasing food literacy by exploring a variety of recipes with participants, discussing the historical contexts of foods, and encouraging youth to take pride in their cooking abilities as a way to connect with food. Programs within Canada and the U.S. tend to follow similar practices and structures: many rely on hands-on cooking instruction and focus on skill-building activities such as reading recipes and food labels, nutrition awareness, and cooking skills. Additionally some ground the programs in broader food systems concepts, such as addressing the historical context of food or exploring contemporary food system problems. Programs local to Ontario include the Food

Leadership for Youth program at The Stop Community Food Centre in Toronto and the Cook It Up program in London (Thomas and Irwin 2011), while similar programs exist in California and New York State, among many others (see Chessen et al. 2009; Thonney and Bisogni 2006).

Unique to many cooking programs is their target audience, as many of the after school programs are made available to middle school and high school students. As Davies and Thomas note in their “how to” guide based on the Cook It Up program (2010), the adolescent age group has often been overlooked for effective food education programming in the community setting, as most school garden and farm to school programs engage elementary students. Additionally, surveying the literature on cooking-based food education programs reveals their tendency towards targeting lower income or disadvantaged youth.

Though they take many forms, food education programs generally attempt to reskill youth eaters by reconnecting them to food in some way while bringing food into focus in the learning environment. Evident in the exploration of food education programs is the variance in how food education manifests itself, how food literacy is understood, and what it means to reskill oneself in the food system. Every food education program operates with its own concept of what food education should entail, what it means to be food literate, and what children and youth require in terms of knowledge, skills, and awareness in order to be “reskilled”. Thus, all food education programs are trying to instill food literacy of a sort, but what kind of food literacy? And are they succeeding? That is, for all the effort being poured into building food education programs to promote and instill food literacy, what level of outcome is being achieved? What is the larger lesson learned in these food education programs, and how effectively are they contextualizing their programming and their efforts to reskill? There exist assumptions that food

education leads to food literacy and larger change. Yet, by engaging in food education, are the participants becoming food literate, and if so, what kind of literacy are they gaining?

Chapter Two: Research Methods

I entered this research process with a series of guiding questions and the intent to find some semblance of an answer over the course of the year. I designed my research to fill in some of the gaps in literature I had noticed over the first sixteen months of my MES program, which came to light as I dug through studies of food education and its rise alongside equally increased attention to sustainable food, food knowledge and attitudes, and the failures of our current food system. *How, and to what extent, does food education facilitate a reasonable level of food literacy in youth?* That is, what is the value of food education programs in increasing or contributing to youth food literacy in a time when the industrial food system has actively encouraged a disconnect between food and its source at the expense of Canadians' (and North Americans') food literacy? This main question led to several others – questions like: *what exactly are the components of food literacy and how do we measure and understand food literacy? How can we understand the challenges and opportunities in creating and executing an effective food education program that will promote youth food literacy? What are the barriers to overcome as food education grows in popularity?*

In developing my research design, I moved forth with the intent to explore these questions within what the available literature has alluded to as a prospective continuum linking food education to food literacy to larger food systems change. While my main question drove many of my preliminary research inquiries and efforts, I also explored my subsequent questions enumerated above in due course throughout the research process. My research took place between January 2014 and June 2014, through a combination of literature analysis and case study

research. My case study focuses on the Food Leadership for Youth program at The Stop Community Food Centre in Toronto, Ontario, and I employed multiple forms of evidence gathered during fieldwork to form a cogent analysis in which I embedded my mixed-methods research efforts.

Objective

Food education programs have grown more popular in recent years as attention has turned to the many ways in which the modern industrial food system fails eaters. Programs have sprung up that offer opportunities to engage in gardening and cooking while learning about nutrition and food systems – all the while hoping to re-skill those who have been purposefully deskilled by powerful agribusiness and food marketers. Food education programs are not unique to Canada and are, in fact, even more plentiful in the United States. Other developed countries including Australia and the United Kingdom have also begun to emphasize support for community- and school-based food education programs as obesity rates continue to rise and knowledge of the modern industrial food system remains low.

My research efforts sought to answer a series of questions that sprung from one main question: *how, and to what extent, does food education facilitate a reasonable level of food literacy in youth?* The cloud of subsequent questions that arose alongside this guiding topic can be broken down into two main areas. Firstly, what are the components of food literacy, and how do we measure and understand food literacy? Secondly, to what extent can certain food education programs contribute to food literacy, and what are the challenges of creating and executing an effective program if food literacy is one of the ultimate goals? In order to be able to answer these questions as fully as possible, I sought to use a mixed methods approach in my research, which

centered on a case study of a community-based youth food education program at The Stop Community Food Centre in Toronto, Ontario.

Foundational Learning and Reading

The starting point for this research was a literature review that I began during the process of writing my research proposal. I drew partially on documents I had reviewed for previous course work and independent directed studies – mainly non-profit evaluations of food education programs, journal articles by key academics in the field of food education, and more popular media publications such as newspaper articles and organization websites. Dorothy Blair, Andrea Azuma, Gail Feenstra, Jack Kloppenburg, Jennifer Sumner, Helen Vidgen, and Danielle Gallegos have all written extensively on various aspects of and approaches to food education or food literacy in the broadest sense, and it was from them that I began to build my understanding of food education programs and various definitions and measures of food literacy. Reports by The Conference Board of Canada, Public Health Ontario/Ontario Society of Nutrition Professionals in Public Health, and the Public Health Agency of Canada also lay the groundwork for the introductory portions of this paper and my analysis of benchmark measures of food literacy.

However, it was last year that contributed significantly to my foundational learning and that ultimately led me to pursue my research questions. Coursework in the introductory “Food, Land, and Culture” in the Faculty of Environmental Studies with Rod MacRae included a reading by JoAnn Jaffe and Michael Gertler (2006), which explored the idea of consumer deskilling by the industrial food system. The discussion explored within prompted what became a thread of inquiry throughout my MES program – that of how to reskill individuals with food knowledge that has been lost or discouraged, not only to improve food literacy for one’s own benefit but to also potentially impact the larger food system. Over the year, I also volunteered with the FLY

program at The Stop, which became the subject of this paper, and I served as a counselor at Evergreen Brickworks' Green City Adventure Camp in the summer between the first and second year of my master's program. These two experiences allowed me to witness food education programming in action. I participated in the development, management, and execution of community-based food education programs intended to increase food knowledge and food awareness. My work with these two organizations, and my sustained conversations with the FLY program leader, let me actively explore ideas of how to teach the food system to specific demographics and backgrounds. The experience was critical in encouraging my desire to understand the extent to which programs like these can actually impact food literacy – and whether food literacy makes a difference in the “big picture” of food systems change.

Situating the Researcher

I came to this research as a trained chef, a recreational athlete, and a volunteer youth educator, all of which are parts of my daily experience that drove my interest in understanding food education and food literacy. As a trained chef, family members, coworkers, and friends often converse with me about food and over time I have noticed a general lack of basic food knowledge or understanding of the contemporary food system. As a competitive powerlifter, I have a keen interest in health and nutrition – but not nutritionism. To me, food often serves as fuel and what I consume impacts my performance. This has required me to substantially increase my own food knowledge in order to successfully navigate the current industrial food system. Consequently, these efforts have continued to reveal to me the many barriers to creating and maintaining a healthful and holistic relationship with food in the context of the current food system. As a volunteer educator, I have held several positions during the course of my MES

program at both The Stop and at Evergreen Brickworks in Toronto, where I have helped to lead and implement food education programming for children and youth.

I chose the topic of this paper primarily because I have found there to be gaps in the current literature: a lack of consensus on what constitutes food literacy, a lack of research efforts that actually attempt to link food education programs to their impact on food literacy, and a presumption that increasing food literacy will ultimately lead to broader food systems change. However, I also chose this research because I have been fairly involved in food education programming over the past few years. As a frontline food educator, I want to know whether the programming in which I am involved is actually making a notable difference in increasing youth food knowledge and food literacy, and whether it is or is not a possible effort towards encouraging larger food systems change.

Qualitative Methods and Case Study Research

While I am employing a mixed methods approach to my research, this paper is centered on a case study of one program at a community food center in Toronto. A qualitatively-driven case study is beneficial for research on food education and food literacy, for one of the primary applications of case studies includes explaining “presumed causal links in real-life interventions that are too complex for the survey or experimental strategies” (Yin 19). This description is befitting of the FLY program at The Stop. It is a real-life intervention that does not simply seek to measure how many recipes the participants successfully learn to cook, or the shift in their food choices from processed to unprocessed over the course of the year. Rather, the program’s goal is to encourage participants to learn to cook through hands-on experiences while engaging in critical contemporary issues around nutrition, food systems, and environmental sustainability. FLY operates as part of a complex, shared space in a community food center model that is part of

Toronto's changing food landscape and that strives to give community members a platform to learn about food-related issues that matter to them ("The Community Food Centre Model", The Stop 2014). It is structured as an involved, multi-faceted program where girls' interactions cannot easily be reduced to surveys or experiments – nor should they, in a time when research on food education and food literacy is in its infancy and the complexity of causal relationships has yet to be fully explored or explained.

What does a case study have to offer that other research methods do not, and why is this important, especially with regard to other literature and studies available on food education and food literacy? Unlike many available studies that reduce conclusions to analysis of quantitative data and narrow definitions of increased food knowledge (e.g. Libman 2007; Crawford et al. 2007; Larson et al. 2006; Meehan, Yeh, and Spark 2008), "the case study method allows investigators to retain the holistic and meaningful characteristics of real-life events" and its "unique strength is its ability to deal with a full variety of evidence" (Yin 4, 11). Not only is the FLY program itself a multi-faceted endeavor worthy of a holistic investigation, but the failures and problems in the current food system also represent a complex web of stakeholders in government, industry lobbyists, large agribusiness, marketers, retailers, and schools, among others. Food literacy is thus impacted by these influential forces, and a case study approach to my research can help account for the broader context in which food education programs operate. Through a case study, the FLY program can be analyzed through the context of its presence in a community-oriented food center that supports equity and food justice, and through the context of a tumultuous and troubled national food environment that has deskilled its consumers.

Unlike other research methodologies, there is not a wide body of work that defines how to conduct strong case studies. Robert Yin (2009) provides some of the most explicit guidance,

which I relied on to ensure a credible and sound study design. For the case study portion of my research, I chose a single case, holistic design, which examines a case as a single unit of analysis within a larger context. Because The Stop has become a leader in food-related justice, leadership, equality, and education efforts in Toronto since its founding three decades ago, it is worth studying as a single case within the context of this research and within the context of a changing food landscape and increased food education programming efforts to support food knowledge and literacy. Its prominence in local attempts to contribute to building a just and sustainable food system make programs within the organization strong candidates for evaluating and exploring the ties between food education and food literacy, when the ultimate goal is an alternative food system to what currently exists.

Yin emphasizes that one of the key factors in conducting a case study is theory development. Other related methods such as ethnography and grounded theory “deliberately avoid specifying any theoretical propositions at the outset of an inquiry” but “for case studies, theory development as part of the design phase is essential” (35). Thus, as part of my case study design, my research question stemmed from a broader theory based on a literature review: *that food education programming has the potential to increase certain kinds of food literacy in participants*. This simple theory development is based off of the growing body of literature that alludes to food education programming that influences participants’ food knowledge. However, as detailed in Chapter Three, I also conducted a thorough review of available literature to develop a theory of how to define and measure food literacy, which served as a benchmark for comparison when studying the FLY program.

"The Best Laid Plans..." – Shifting Tactics in Community-Based Research

One of the critical principles of qualitative research and – in particular – case study research is the use of multiple forms of evidence so that the researcher may develop converging lines of inquiry. I entered the research process with the intention of using a range of methods to facilitate a depth of analysis in my discussions and conclusions. However, within the first six weeks of the research process, it became apparent that some of my methods of inquiry would be affected due to the shifting nature of the FLY program. As the 2014 winter semester of the FLY program progressed we – the staff and volunteers – were faced with an unprecedented problem of both participant retention and lack of regular participant attendance; this issue is discussed and analyzed in depth in Chapter Six. The FLY program for the 2013-2014 school year began in early October with ten enrolled participants. However, by February 2014 numbers dwindled to less than half of the original participants, and despite continual efforts, the program coordinator struggled to consistently enroll new girls in the program. As is the nature of much community-based research, my research plans and methods of inquiry were forced to adapt to the fluid and unpredictable situation faced in the FLY program. The lack of participant retention and participant attendance was unrivaled in the FLY program. In its three previous years of existence, attendance had remained rather steady throughout the whole school year, with between eight and twelve girls enrolled and participating consistently.

Lack of attendance and poor participant retention impacted my ability to evaluate and analyze The Stop's internal qualitative questionnaires completed by FLY participants at the beginning and end of the program. The majority of the girls who enrolled at the outset were no longer in attendance halfway through the school year. The FLY program coordinator opted to not employ the entry questionnaires with newly enrolled participants during the winter semester,

for their continued attendance was not guaranteed and the program was also in flux. The program continued its weekly sessions and I was thus able to make significant use of participant observation through my role as a volunteer during all sessions. However, because fewer girls were in attendance, there were also fewer interactions to observe, fewer participants with whom I could converse, and less qualitative data that I could collect.

In order to maintain a thorough system of data collection, and in order to rely on a range of evidence, I altered my research tactics to focus more heavily on interviews to compensate for the lack of participant questionnaire data. I increased the number of interviews conducted with FLY staff and volunteers to create space to critically analyze the unanticipated issue of participant retention and attendance. I also chose to interview participants from the current year's program and the 2012-2013 FLY program, which allowed me to collect a rich spectrum of conversations, opinions, thoughts, and experiences from the girls about their time in the program. My planned methods of document analysis, literature review, and participant observation remained unchanged. Below, I outline my original, planned methods of research inquiry, along with the changes implemented to accommodate program fluctuations.

Evidence and Methods of Inquiry

My research is founded on a mixed methods approach, and my planned methods of inquiry were comprised of a literature review, document analysis, participant observation, semi-structured interviews, and the evaluation and analysis of The Stop's internal qualitative questionnaires completed by FLY participants at the beginning and end of my research. I began by framing my research with a general literature review of the contemporary food system, for a case study's purpose is to examine a specific instance within its larger context. A literature review of the modern industrial food system allowed me to pinpoint a spectrum of problems currently

being analyzed by scholars. This included everything from the externalities inherent in the industrial food system, to the consolidation and concentration of large agribusiness players that ensures a near monopoly on determining how the modern North American eater perceives and consumes food, to the deskilling to which eaters have been subjected as the food system has evolved. This general literature review also allowed me to clarify my understanding of current responses to problems in the food system by considering the rise of food education to counteract the purposeful deskilling that has taken place in the contemporary food environment. I sourced most of my readings by reviewing and re-reading books and articles from my course syllabi and my previous course papers, after which I reviewed article bibliographies to locate and then read related works.

My general literature review was followed by a more targeted review with two goals: to evaluate other research on food education programs and food literacy, and to compile both an understanding of definitions of food literacy and a list of food literacy “benchmarks” according to other scholars. I searched academic publication databases with keywords that included combinations of “food literacy” “youth food literacy”, “food skills”, “food knowledge”, “cooking programs”, “community food”, and “food education”. After reviewing abstracts, I selected a range of relevant research papers to read and analyze. I also reviewed the papers’ bibliographies to locate a second round of relevant papers. Even though discussions of and research on food literacy is relatively new, this method provided me with a selection of relevant research from which to analyze definitions of food literacy and its benchmarks. I developed a data matrix that outlined for each relevant paper the author, title, context, definition, and benchmarks of food literacy (found in Chapter Three of this paper), and this table formed the basis of my conclusions.

After grounding myself in a comprehensive literature review, I employed my other stated research methods, which were conducted simultaneously over the course of the research process from January 2014 to June 2014. Participant observation was a critical component of data collection during the research process. As DeWalt and DeWalt (2011) explain, “participant observation is a method in which a researcher takes part in the daily activities, rituals, interactions, and events of a group of people” (1) and “puts you where the action is and lets you collect data” (2). It “enables the research worker to secure his data within the mediums, symbols, and experiential worlds which have meaning to his respondents” (Vidich 354). Given that a case study seeks to deal with a full variety of evidence and allows the researcher to consider data within its unique context, the inclusiveness of experience that characterizes participant observation was particularly beneficial to my research. As a volunteer and participant observer with the FLY program, I attended all weekly sessions from October to April, with my research falling between January and April. I also completed all normal volunteer duties, including program organization, facilitation, and management. During my participation, the girls knew I was a master’s student working on my major research paper, but I did not reveal the details of my research questions beyond the broad description in my informed consent forms. To ensure my role as a researcher did not impede my tasks as a volunteer and that the FLY girls felt comfortable in the space, I did not take field notes during the program sessions. Instead, I maintained a field journal where I wrote detailed observations in the evenings upon returning home from the FLY program.

As a participant observer, I also held “insider” status with the program, which is important to note, for “what an observer will see will depend largely on his particular position in a network of relationships” (Vidich 354). I had previously served as a volunteer during the 2012-

2013 FLY program, and I had been working with the 2013-2014 FLY program since its recruitment and enrollment period in September 2013. Therefore, my insider status enabled me to maintain a close relationship with the participants, staff, and volunteers. I was not viewed as a researcher, but rather as a volunteer and a part of the program. While an outside participant observer may not have been privy to certain conversations or welcomed so convivially, I was treated as “one of them” and was able to participate fully in all aspects of programming, as well as discussions and debriefing with the program coordinator and other volunteers. As an insider, the FLY program coordinator regularly and continuously shared her insights, opinions, and concerns with me along the way due to my status as a program insider.

Beyond my insider status, being a volunteer meant I was positioned with less of a power differential than staff; I was not placed into the assumed power hierarchy between the FLY participants and the program coordinator, but at the same time I was not quite a peer to the participants. This “in-between” status created a more equal power differential between myself and the program participants than if I had held a staff role or had only been a university researcher. In turn, this allowed me to build more open and trusting relationships with participants and gain a depth of perspective into their experiences of the program. I was also a white woman in a group of young women who were primarily racialized, with some being newcomers to Canada. Both the program coordinator and the majority of FLY participants were visible minorities, while I came to the program as a white, English-speaking woman born in Canada. I was aware that the combination of age and race could result in my being perceived by the participants as in a position of power; I therefore made a conscious effort to construct a casual, conversational relationship rather than a more formal or instructive relationship.

Semi-structured interviews formed another critical mode of data collection, for interviews are “one of the most important sources of case study information” (Yin 2006). While I had originally intended to only interview FLY staff and volunteers, due to lack of program attendance and issues with program retention, I expanded my interviews to include current and past FLY participants. All staff, volunteers, and FLY participants were invited to participate in individual, semi-structured interviews. Those who I ultimately interviewed represent a self-selection, for not all FLY participants wanted to be interviewed. Interviews occurred between January 2014 and June 2014, and all but two were conducted in person. I met with interviewees over lunch in cafes around the GTA to purposefully create an informal and candid atmosphere. Interview questions differed based on the interviewee’s involvement with the FLY program, but all interviewees were asked a number of open-ended questions that sought their opinion on the FLY program, their experiences with the FLY program, and their understanding of food literacy. Given my personal relationship with the participants, conversation flowed freely and often questions led tangentially to related issues that provided critical insight into my research questions. I often chose to forgo several questions so as to not restrict or redirect the conversation unnecessarily, and I consciously chose to let the conversation flow as the interviewees desired; this was frequently telling, for interviewees focused on questions and conversation topics that were of particular importance to them, and our exchanges were candid and unrestricted. As I was able to speak with staff, volunteers, and program participants, my interview transcripts highlight a range of experiences and opinions of the FLY program, and of food literacy and food education programming in general. In particular, multiple interviews with the FLY program coordinator provided me with detailed insight into the program’s goals and mechanisms as well as a

grounded opinion on the issues discussed based on her everyday involvement with both The Stop and the FLY program. A list of interview questions can be found in Appendix I.

Table 1: FLY program interview breakdown

Role in FLY	Number of interviewees	Total number of interviews	Age range
Staff	2	4	30s
Volunteer	2	3	20s – 30s
Program participant	3	3	14 – 18
Total	7	10	--

All interview participants were female, given that FLY maintains a single-sex education program. The majority of staff and volunteers interviewed were Caucasian, and all had previous food or education backgrounds. FLY participants ranged in age from fourteen to eighteen, and represented a variety of ethnic backgrounds. The duration of the interviews varied slightly, and most were between 45 and 75 minutes in length. I used an audio recorder for almost all interviews with the express consent of the interviewees.

Document analysis completed my research methodology, and throughout the research process I evaluated and analyzed both internal and external documents from The Stop and the FLY program. Publicly available documents such as brochures, program flyers, and website pages provided me with perspective on how The Stop presents both itself and the FLY program to a broad audience and its neighbors and beneficiaries. As a volunteer, however, I also had access to a range of internal documents, including those that outlined goals and missions of the FLY program, course and lesson outlines, and handouts for the program. My document analysis was similar to that of my interviews, and I coded similar ideas and themes that emerged in the documents in order to elucidate patterns.

I had originally intended to use The Stop's internal qualitative entry and exit questionnaires completed by FLY participants as a more "quantitative" or structured method of evaluating food literacy compared to the benchmarks derived through my literature review. I had intended to compare how often the indicators and benchmarks from my review appeared throughout the survey responses, which would have enabled me to draw conclusions on the extent and type of food literacy gained by participants through the program. However, the program's attendance and retention issues meant I was unable to include this method of inquiry in my research process.

Ethical Considerations

I have sought to maintain the privacy of all FLY participants, staff, and volunteers in my research by limiting identifying characteristics where applicable. Additionally, all participants completed a written informed consent form approved by the FES Research Committee, indicating their willingness to participate in my research process. I clarified within my informed consent form that participants could withdraw at any point in the process, and that doing so would not impact my relationship with them or their involvement with the FLY program. My application to conduct human participant research was also approved by the Committee in January 2014, prior to any participant observation or interviews occurred.

Data Analysis

Interviews were audio recorded and then transcribed in full, and I took extensive notes on my one phone conversation with the FLY program director. I then coded segments of transcripts where similar ideas and opinions emerged, so that these commentaries and experiences were grouped together by theme. This allowed me to recognize which themes and responses were repeated most frequently. Ideas and commentaries for which I coded centered on how the FLY

participants categorized what they learned in the program based on the benchmarks described in Chapter Three. From a broader perspective, concepts coded for included the lessons participants carried with them after the program finished, new forms of food knowledge demonstrated by participants, how participants spoke about problems in the food system and their personal relationship with food, the struggles in implementing the FLY program, and the challenges faced by the program – among others. I used a parallel coding process in the analysis of my field notes from participant observation and in the analysis of my internal and external document review. Certain themes came through repeatedly, and these formed the basis for my discussion and analysis in the later chapters of this paper where I situate my data within the context of my literature review on food literacy as defined by the academic and grey literature. The remarks and opinions of staff, volunteers, and the FLY participants strongly influenced my recommendations in the concluding sections of this paper.

Chapter Three: Unpacking the Idea of Food Literacy

A host of food issues have garnered increased attention over the past decade, and especially in recent years. In response, specific language to identify and describe emerging topics has developed. Food literacy is one of these newly prevalent buzzwords, along with others like “alternative food”, “food justice”, “food citizenship”, “real food” and, most recently, “food gentrification”. These terms often pepper conversations, conferences, media, and literature with little unity in definition. While a popular buzzword like “food justice”, for example, may connote specific meaning to one group, others may use the term to intimate different themes, concerns, or histories. Similarly, Cullerton, Vidgen, and Gallegos (2012) describe food literacy as an equally permutable term, where there exists little real shared understanding of its meaning or components. While much of this heterogeneity can be attributed to the simple “new-ness” of

food issues and the attention they now receive, to some extent it is also because the histories, contexts, concerns, and efforts around food literacy and other food issues are rooted in a complex, layered social, political, economic, cultural, and environmental web that cannot always be neatly filtered into one simple definition or measure. Given that one of the central goals of this paper is to use the FLY program as a case study to question whether, and to what extent, community food education programming facilitates food literacy in youth, it is both worthwhile and necessary to establish what food literacy is and how we can know when someone is food literate.

Why does this quest to understand food literacy matter? The larger political-economic context of an increasingly powerful global corporate food system, the strength of food advertising, the sustained dominance of processed foods, the rapid rise of lifestyle diseases, and the undeniable impact of large-scale industrial farming techniques all draw attention to the need for change in the food system – or at the very least the need to provide individuals with some defense mechanism to navigate around the ills of the contemporary food system. Consequently, scores of food education programs either explicitly or implicitly name food literacy as one of their main goals. Governments, organizations, and even a number of academics are operating on rather widespread and ongoing assumptions that education efforts are both effective and worthwhile in improving participants' and users' food literacy, and that this increased food literacy will impact either the food system's or one's own well-being. It is this "food literacy" that is assumed to be one possible solution in attempts to reskill eaters and reclaim food knowledge. However, the Conference Board of Canada admits in its recent review of food literacy (2013) that "large information gaps exist concerning the effectiveness of food literacy campaigns in Canada" (Howard and Brichta 44).

How can we evaluate a food education program or food literacy efforts if those studying and working in food systems cannot agree on a definition of food literacy, and its telling benchmarks or measureables? How do we know what food literacy strategies represent a “smart buy” or a good investment? As Stinson (2012) asserts in her thesis on food literacy in secondary school classrooms, building literacy of any sort requires a complex, layered approach. There is no exception with food literacy, for there are a preponderance of facts, perspectives, and connections within the current food system that require more than a superficial understanding in order to make sense. As programs that proclaim their efforts to teach food literacy skills continue to form, the question still holds: what is food literacy, and what are the indicators of an individual who has become food literate?

Food Literacy as Individual Responsibility and Choice

In the literature on food literacy, there appears a trend where food literacy is deemed something of an individual responsibility by many authors and scholars. While there are subtleties within each researcher’s definition, as a whole this rather prevalent classification of food literacy is remarkably narrow. It places the burden of both literacy and action on the individual by defining food literacy as an increase in individual skills or in one’s ability to make healthy choices. In scrutinizing the definitions alone, the language used reinforces this assumption of food literacy as an individual burden; it is often defined in “the capacity of the individual” (Coveney, Begley, and Gallegos 634) and in eaters’ ability to “make healthy choices throughout their lives” (Sustain Ontario 2013, 2). In the minds of many, to be food literate is to know the ills of the system and to be able to work around these ills to benefit oneself. The definition and benchmarks in this rendition of food literacy assumes that a food literate individual operates within the current food system. That is, rather than having the awareness and

“know-how” to advocate for larger, more structural food systems change, this type of food literacy promotes knowledge and skills acquisition for one’s own betterment, while leaving the roots of problems within the food system untouched. It is a more restrictive definition of food literacy, tethered to the neo-liberal ideology of self-reliance, sometimes viewing food as a nutritional input and often ignoring the larger impacts of the modern industrial food system on the functioning and health of current society as a whole.

When analyzing the literature on food literacy, a relatively distinct division appears between the disciplines in which the literature is rooted (see Table 2, *Charting food literacy definitions and understandings in academic and organizational literature*, on pages 33 – 38). Those in the fields of health studies, nutrition, dietetics, marketing and, to a certain extent, public health, tend to covet technical skills, quantifiable food knowledge, and the maintenance of individual health and well-being as key markers of food literacy. Non-profits and government alliances focusing on food literacy tend to follow a similar pattern, emphasizing the strength of one’s own relationship to food as central to food literacy, and favoring the acquisition and preservation of individual health and well-being as key benchmarks of food literacy. Presenting an alternate and more complex conception of food literacy are those primarily in the field of education, accompanied by those in the fields of sociology, environmental studies and, to a certain extent, public health. Adding a depth to our understanding of food literacy, authors in these disciplines hold a broader understanding of the concept that is rooted in context and motivated by active citizenship and systems change, where to become food literate is to undergo both transformative and emancipatory learning. These scholars define food literacy as prompted by political and social consciousness, and see the benchmarks of food literacy as including the

drive and desire to pursue a structural understanding of and change in the current food landscape.

In questioning whether cooking skills have become a new “morality”, Coveney, Begley, and Gallegos employ language that emphasizes the individual to discuss food literacy; food literacy in their eyes is taken to mean “*the capacity of an individual to obtain, interpret and understand basic food and nutrition information and services as well as the competence to use that information and services in ways that are health enhancing*” (634 – 635, emphasis added). Sustain Ontario, in their background publication on food literacy, food security, and local food procurement in Ontario schools (2013) echoes this individuality present in many understandings of food literacy, asserting that “food literacy education engages children and youth to learn skills and *develop habits that will enable them to make healthy food choices throughout their lives*” (2, emphasis added). In both these definitions, food literacy is described as a skill that facilitates an individual’s navigation of the current food system, relying on one’s own acquired knowledge and habits to avoid complex problems without actually acting to seek change.

When conceptualized as the ability to pursue healthy choices based on individual responsibility, food literacy is also often measured through functional, skills-based markers. In their report on a cooking program for at-risk youth in Ontario (2011), Thomas and Irwin offer a skills-based definition of food literacy: “while an ‘official’ definition for food literacy is not presented in the literature, it can be defined as the ability to make healthy food choices by having the skills and knowledge necessary to buy, grow, and cook food with implications for improving health” (2). Seeking to improve food literacy in program participants, Thomas and Irwin provided food education to increase skills and awareness of agriculture, healthy eating, food

Table 2: Charting food literacy definitions and understandings in academic and organizational literature

Author	Title	Discipline/ field	Food literacy definition	Food literacy benchmarks	Outlook
Stinson, E. (2010)	Eating the World: Food Literacy and its Place in Secondary School Classrooms	Education	“A deeper understanding of the complex environmental and social components of food in our lives” (2); “an important component of environmental health and social justice, both within and between global communities” (3); “it is important for citizens to have this knowledge [food literacy] so they can maintain important democratic values that are being eroded” (6)	<ul style="list-style-type: none"> ▪ Conscious/aware of socio-political impacts of the food system (7) ▪ Active citizenship (6) ▪ Understanding the personal and collective responsibility to enact a responsible food system (22) ▪ Ability to disrupt ingrained notions of how food is supplied and consumed within a local area or region (53) 	Broad definition that is motivated by active citizenship and systems change
DeCampo, H. (2011)	Eat your words: An investigation into food literacy as a means of stimulating an appetite for learning and engagement	Education	“The ability to understand where food comes from and how it is produced, appreciate the cultural significance of food, make healthy decisions, and recognize the implications – social, environmental, political, cultural and economic – of the food we eat” (1)	None provided	Mixed definition that considers the broader structural issues inherent in the contemporary food system; but still focuses on individual and choice (i.e. “make healthy decisions”)
Coveney, J. et al. (2012)	‘Savoir Fare’: Are cooking skills a new morality?	Adult learning	“The capacity of an individual to obtain, interpret and understand basic food and nutrition information and services as well as the competence to use that information and services in ways that are health enhancing” (634 – 635).	<ul style="list-style-type: none"> ▪ Basic cooking skills (629) 	Narrow definition that covets technical food skills, maintaining individual health and well-being by navigating current food landscape rather than seeking change in the food landscape

Author	Title	Discipline/ field	Food literacy definition	Food literacy benchmarks	Outlook
Thomas, H. & Irwin, J. (2011)	Cook It Up! A community-based cooking program for at-risk youth: overview of a food literacy intervention	Health studies, dietetics	“While an ‘official’ definition for food literacy is not presented in the literature, it can be defined as the ability to make healthy food choices by having the skills and knowledge necessary to buy, grow, and cook food with implications for improving health” (2)	<ul style="list-style-type: none"> ▪ Food safety, selection, preparation (2, 7) ▪ Cooking skills (2) ▪ Increased consumption of fruits and vegetables (7) ▪ Higher frequency of cooking (7) ▪ Increased nutrition knowledge (7) ▪ Less money spent on food (7) 	Narrow definition that covets technical food skills, maintaining individual health and well-being by navigating current food landscape rather than seeking change in the food landscape
Brooks, N. & Begley, A. (2013)	Adolescent food literacy programmes: A review of the literature	Nutrition, dietetics	“Food literacy may be defined as ‘the relative ability to basically understand the nature of food and how it is important to you, and how able you are to gain information about food, process, analyze it, and act upon it’ (1)	<ul style="list-style-type: none"> ▪ Increased food & nutrition knowledge (10) ▪ Ability to cook for oneself, prepare foods in new ways (10) ▪ Making recipes taught in programs at home (10) ▪ Increase in fruit/vegetable consumption (10) ▪ Ability to influence family and peers in the purchasing, preparation & consumption of meals (10) 	Narrow definition that emphasizes the individual, and one’s own relationship to food; favors individual health and well-being by navigating current food landscape rather than seeking change in the food landscape
Bublitz, M. et al. (2011)	The Quest for Eating Right: Advancing Food Well-Being	Marketing, consumer research	“Food literacy expands traditional measures of nutrition knowledge to include not only what people know about food but also their ability to use that information to facilitate higher levels of FWB [food well-being]” (3); includes “declarative types of knowledge” such as knowing what asparagus is, and “procedural knowledge” such as how to cook asparagus (3)	None provided	Narrow definition that covets technical food skills, maintaining individual health and well-being by navigating current food landscape rather than seeking change in the food landscape

Author	Title	Discipline/ field	Food literacy definition	Food literacy benchmarks	Outlook
Sumner, J. (2012)	Learning for Life: Food Literacy and Adult Education	Education	“Food literacy is the ability to ‘read the world’ in terms of food, thereby recreating it and remaking ourselves. It involves a full-cycle understanding of food – where it is grown, how it is produced, who benefits and who loses when it is purchased, who can access it (and who can’t) and where it goes when we are finished with it. It includes an appreciation of the cultural significance of food, the capacity to prepare healthy meals and make healthy decisions, and the recognition of the environmental, social, economic, cultural and political implications of those decisions” (321)	<ul style="list-style-type: none"> ▪ Instrumental knowledge, e.g. nutrition facts, cooking, shopping ▪ Historical-hermeneutic knowledge, e.g. understand discourses and narratives around food and food systems ▪ Critical-emancipatory knowledge, e.g. transformative learning, critical reflection, knowledge mobilization to actively seek change 	Broad definition that is motivated by active citizenship and systems change, and that is transformative and emancipating; political and considers the larger context
Kimura, A. (2011)	Food education as food literacy: privatized and gendered food knowledge in contemporary Japan	Sociology, env. studies	Supports a framework for food education and food literacy that “incorporates structural analysis and gender/class consciousness and that does not shy away from challenging policies and the structure of economy” (480)	<ul style="list-style-type: none"> ▪ Able to problematize environmental & social conditions of food production (468) ▪ Understand the macrostructure of food and agricultural systems (480) ▪ Understand food behaviors and practices as functions of cultural & social influence, class, gender, social infrastructure 	Broad definition that is motivated by political and social consciousness and pursues a structural understanding of current food conditions
Cullerton, K. et al. (2012)	A review of food literacy interventions targeting disadvantaged young people	Public health, nutrition & dietetics	“The relative ability to basically understand the nature of food and how it is important to you, and how you are able to gain information about food, process it, analyze it and act upon it” (2)	<ul style="list-style-type: none"> ▪ Selection/purchase of food (8) ▪ Independent prep of food (8) ▪ Ability to food budget (8) ▪ Confidence to perform cooking ▪ Improvements in fruit and vegetable consumption (8) ▪ Purchasing less convenience food; increased likelihood of tasting and experimenting with new food (8) 	Narrow definition that covets technical food skills, maintaining individual health and well-being by navigating current food landscape rather than seeking change in the food landscape

Author	Title	Discipline/field	Food literacy definition	Food literacy benchmarks	Outlook
Howard, A. & Brichta, J. (2013)	What's To Eat? Improving Food Literacy in Canada	Non-profit research organization	"An individual's food-related knowledge, attitudes and skills" (2)	<ul style="list-style-type: none"> ▪ Ability to select and purchase nutritious foods and meals (2) ▪ Understanding food safety (2) ▪ Recognizing a healthy diet (2) ▪ Read/understanding food labels (2) ▪ How to plan and budget for food (2) 	Narrow definition that covets technical food skills, individual health and well-being by navigating current food landscape rather than seeking change
Block, L. et al. (2011)	From nutrients to nurturance: A conceptual introduction to food well-being	Marketing	Food literacy is defined at the individual level as "including tools, heuristics, procedures, and techniques" and at the societal level including education, guidelines, and campaigns (6); food literacy is seen as "more than knowledge: it also involves the motivation to apply nutrition information to food choices" (7)	<ul style="list-style-type: none"> ▪ Conceptual/declarative knowledge, e.g. knowing food sources, nutrition facts (7-8) ▪ Procedural knowledge, e.g. how to shop for and prepare foods (7-8) ▪ The ability, opportunity, and motivation to apply or use food knowledge e.g. an obese person may have the knowledge of how to choose healthier foods, but food literacy requires a confidence and motivation to apply this knowledge (7-8) 	Narrow definition that covets technical food skills, individual health and well-being by navigating current food landscape rather than seeking change in the food landscape; while some language mimics a broader definition of food literacy like Stinson and Sumner, it still remains rooted in individual choices and individual health
Desjardins, E. et al. (2013)	Making something out of nothing: Food literacy among youth, young pregnant women and young parents who are at risk for poor health	Public health	"A set of skills and attributes that help people sustain the daily preparation of healthy, tasty, affordable meals for themselves and their families. Food literacy builds resilience, because it includes food skills (techniques, knowledge and planning ability), the confidence to improvise and problem-solve, and the ability to access and share information" (v)	<ul style="list-style-type: none"> ▪ Capable & motivated to access and prepare healthy food in a safe and personally satisfactory way (63) ▪ Can improvise with ingredients, follow recipes, use food prep utensils/appliances ▪ Knowledgeable & confident in preparing meals that taste good (63) ▪ Knowledgeable about food nutrition, safety, labels, planning, budgeting, buying food (63) ▪ Organizational skills to locate resources, make above happen (63) ▪ Find satisfaction, creativity, confidence, social connectedness and resilience because of above capabilities (63) 	Mixed definition that steps beyond the bounds of simply considering technical food skills and cooking/nutrition knowledge (i.e. considers pride, confidence, resilience, satisfaction, and values the ability to share food information); however, still emphasizes an individual notion of food literacy by emphasizing the value of individual resilience against the current food system – e.g. the skills and knowledge to "fend for oneself"

Author	Title	Discipline/ field	Food literacy definition	Food literacy benchmarks	Outlook
Sustain Ontario (2013)	Backgrounder on Food Literacy, Food Security, and Local Food Procurement in Ontario's Schools."	Province-wide, cross-sectorial alliance on healthy food & farming	"Food literacy involves understanding: where food comes from; the impacts of food on health, the environment and the economy; and how to grow, prepare, and prefer healthy, safe and nutritious food" (2); "food literacy education engages children and youth to learn skills and develop habits that will enable them to make healthy food choices throughout their lives" (2)	<ul style="list-style-type: none"> ▪ Learn to prefer "healthier foods" ▪ Ability to plan, shop for, cook, prepare, and preserve healthy food (6) ▪ Food storage and food safety knowledge (6) 	Narrow definition that covets technical food skills, maintaining individual health and well-being by making individual food choices that impact oneself rather than the structural forces negatively affecting the current food system
Vidgen, H. & Gallegos, D. (2011)	What is food literacy and does it influence what we eat: a study of Australian food experts.	Nutrition & dietetics	"The relative ability to basically understand the nature of food and how it is important to you, and how you are able to gain information about food, process it, analyze it and act upon it" (2)	<ul style="list-style-type: none"> ▪ Able to access food with limited resources/ability to budget (19/Appendix 6) ▪ Choose and prepare foods suitable for skill set and time (19) ▪ Knowledge of basic commodities and how to prepare them (19) ▪ Knowing how to prepare some food from all food groups (19) ▪ Able to confidently use kitchen equipment and tools (19) ▪ Knowledge of basic food hygiene and food safety (19) ▪ Knowledge of food and recipe terminology (Appendix 6) ▪ Knowledge of food groups/food guides/food labels (Appendix 6) ▪ Ability to store food, cook with substitutes (Appendix 6) ▪ Ability to make informed decisions from marketing, new products, judge quality of food (Appendix 6) 	Narrow definition that covets technical food skills, maintaining individual health and well-being by navigating current food landscape rather than seeking change in the food landscape

Author	Title	Discipline/ field	Food literacy definition	Food literacy benchmarks	Outlook
Sustain Ontario (2014)	A Discussion About Food Literacy Within the Context of the <i>Local Food Act</i> (Draft)	Province-wide, cross-sectorial alliance on healthy food & farming	Understanding where food comes from and learning about local agriculture (3); understanding how food systems impact individual health, the economy, broader social well being, and the environment (4); understanding how to grow, access, prepare, and prefer healthy, safe and nutritious food (4)	<ul style="list-style-type: none"> ▪ How and why to choose healthy foods (3) ▪ Knowledge of where food comes from (3) ▪ Basic food skills, awareness of what is healthy/local food (4) ▪ Knowledge of the relationship between local food systems, environment, and health (4) ▪ Cooking skills (5) ▪ Food access, food selection, nutrition education, preparation, budgeting, cooking (5) ▪ Reading labels (5) ▪ Food safety (5) ▪ Food terminology (e.g. GMO, organic) (5) ▪ Cook nutritious meals from scratch (5-6) ▪ Understanding food and agricultural systems (10) 	Mixed definition that steps beyond the bounds of simply considering technical food skills and cooking/nutrition knowledge (i.e. considers knowledge of local agriculture and where food comes from, and how food systems impact the environment and broader well being); however, still emphasizes an individual notion of food literacy by defining many benchmarks of food literacy (and associated food education tasks) through cooking skills, desirable purchasing decisions, and nutrition knowledge

preparation, and food purchasing (2). Consequently, the program evaluated food literacy based on increased knowledge of general nutrition and skills in food safety, food selection, food preparation, and basic cooking. The program's curriculum and evaluation was driven by more technical, measurable skill sets and a focus on functional knowledge, and it was this combination that the authors defined as food literacy.

As Thomas and Irwin note in their discussion on food literacy, there is not yet an "official" definition that is agreed upon in the literature. As such, a consortium led by Queensland University of Technology (QUT) in Australia sought to establish a more global definition of food literacy. After a reasonably comprehensive survey of experts and scholars, researchers concluded the most suitable definition of food literacy to be: "the relative ability to basically understand the nature of food and how it is important to you, and how you are able to gain information about food, process it, analyze it and act upon it" (Vidgen and Gallegos 18). As described in their paper, this definition should – when in action – incorporate issues of access, eating, planning and management, food selection, knowing where food comes from, preparation, eating, and nutrition (19). While the definition itself seems to imply a broader and more complex understanding of food literacy and a more political, systematic framework, the components included in the definition (e.g. planning and management, food selection, preparation, nutrition) intimate a more narrow, functional and skills-based measure of food literacy. Supporting this notion is the authors' subsequent publication that evaluates food literacy by analyzing interventions for disadvantaged youth. In their follow-up paper (2012), Vidgen and Gallegos, along with another colleague, sought to understand food literacy in disadvantaged youth by assessing interventions through an examination of participants' skills in selection and purchase of food, preparation of food, consumption of food, food budgeting, confidence to perform food

work, improvements in fruit and vegetable consumption, frequency of using basic ingredients in the preparation of meals, confidence in cooking, buying less convenience food, increased likelihood to taste and experiment with new food, and increased awareness of food preparation and production (Cullerton, Vidgen, and Gallegos 8). The vast majority of these evaluative criteria are individualized notions of food literacy grounded in functional skills and the ability to improve one's own food situation within the current food system. This demonstrates that even if one's definition of food literacy attempts to be rooted in action and driven by a political and social conscience, in practice and evaluation, understandings of food literacy may tend towards skills-based concepts, functional knowledge, and individual health improvement.

Similarly, Brooks and Begley use Vidgen and Gallegos' definition of food literacy in their analysis of nineteen peer-reviewed papers on programs for food education and food literacy in schools and community settings (1). In their discussion and conclusion, Brooks and Begley note that their literature review revealed how "significant positive changes were reported in the areas of food- and nutrition-related knowledge, self-efficacy for cooking, or perceived cooking ability, preparing foods in a new way, making recipes introduced in the intervention at home, and an increase in fruit and vegetable servings per day, or frequency of fruit and vegetable consumption" (10). Even while employing Vidgen and Gallegos' definition of food literacy, which on the surface attempts to maintain a broad view (e.g. having knowledge about food and then *analyzing* it and *acting* upon it), Brooks and Begley adopt a framework of evaluation that describes food literacy based in self-efficacy, functional knowledge, and improved individual nutrition choices.

It is not only researchers and scholars who share some common conception of food literacy as individual responsibility and choice driven by functional food knowledge and technical skill sets. Industry and government can also fall into this category, as evidenced in the

Conference Board of Canada's 2013 study on food literacy. Entitled "What's to Eat? Improving Food Literacy in Canada" and published under the Conference Board of Canada's Centre for Food in Canada (CFIC), the paper not only defines food literacy as "an individual's food-related knowledge, attitudes and skills" (2), but also faults the individual for the "gaps and deficits in Canadians' knowledge and skills related to food" (1). Consistent with researchers like Coveney, Begley, Gallegos, Thomas, Irwin, and Vidgen, the Conference Board of Canada suggests that one can measure food literacy by evaluating competencies such as how to select and purchase nutritious foods and meals, understanding food safety, knowing what constitutes a healthy diet, ability to read and understand food labels, and how to plan and budget for food (2). Throughout the report, food literacy is billed as an intensely individual undertaking rooted in nutrition and quantitative science – for example, understanding food pyramids and nutritional labeling. Nowhere does the report assert that food literate individuals can and should question the power structures or values of the industrial food system itself. Nevertheless, it is crucial to note that this report was prepared under the CFIC, whose goals are to actively engage private and public sector leaders for the food sector in developing a framework for a Canadian food strategy, and whose major investors include Heinz Canada, Maple Leaf Foods, McCain Foods, Nestle Canada, PepsiCo Canada, Saputo Inc., and Weston Foods. Therefore, while the report is one of few recent and comprehensive Canadian publications on food literacy, it is also driven by food manufacturing and retailing companies that have a vested interest in portraying food literacy in a certain way: to be responsible for one's own health and food knowledge within the status quo rather than to act in ways that promote a shift in how the food system functions.

An individualized, functional understanding of food literacy can also be engrained in larger notions of health and well-being. As Bublitz et al. and Block et al. explain, food literacy

serves as one component of the concept of “food well-being” (FWB). An idea based in marketing and consumer research, food well-being is described as “a positive psychological, physical, emotional, and social relationship with food at both the individual and societal levels” (Bublitz et al. 1). Food literacy is one of the five domains of FWB (along with others including food policy and food marketing), and acts as one component that enables people to use information on food and nutrition to facilitate higher levels of FWB (Bublitz et al. 3). The concept of FWB is in itself consumer-oriented, with food literacy defined as informed individual choices within the current paradigm. Specifically, food literacy is seen as “more than knowledge: it also involves the motivation to apply nutrition information to food choices” (Block et al. 7). Here, the authors imply that to be food literate is to be able and motivated to navigate the current paradigm of industrial food with the intention of seeking or maintaining personal health. Throughout their papers, what the authors understand as components of food literacy is explored; to them, food literacy includes conceptual/declarative knowledge (understood as knowing food sources, nutrition facts, and so forth), procedural knowledge (for example, how to shop for healthy food, how to prepare healthy food), and the ability, opportunity, and motivation to apply or use that knowledge to make healthy choices (Block et al. 7 – 8). Again, what is intriguing is how the concept of FWB attempts to ground itself in some grander understanding of health and well-being that describes one’s relationship with food through several lenses – at both the individual and societal levels, according to the researchers. Yet, food literacy is reduced within this framework to the functional skill sets and individual focus present in many other authors’ and researchers’ definitions and conceptions.

Food Literacy Beyond Functional Knowledge

While not particularly common, some researchers have published studies on food literacy that present the concept as more of a mixed bag that steps beyond the bounds of simply considering technical food skills and functional cooking and nutrition knowledge. Yet, these researchers still cultivate an individual notion of food literacy by emphasizing the importance of individual resilience against the current food system and the acquisition of skills and knowledge to “fend for oneself”. Not quite as wide reaching in scope as her peers in the field of education, DeCampo (2011) investigates to what extent food literacy can encourage learning and engagement. Here, she defines food literacy as “the ability to understand where food comes from and how it is produced, appreciate the cultural significance of food, *make healthy decisions*, and *recognize the implications – social, environmental, political, cultural, and economic – of the food we eat* (1, emphasis added). While a more multi-faceted and action-oriented definition of food literacy is presented, DeCampo still highlights the role of making healthy decisions and, consequently, the trend of an individualized responsibility in food literacy.

Equally notable is a late 2013 study released by Desjardins et al. in partnership with the Locally Driven Collaborative Projects program of Public Health Ontario, the culmination of a project that examined how youth and young mothers understand food and food literacy in Ontario. In their executive summary, researchers define food literacy as “a set of skills and attributes that help people sustain the daily preparation of healthy, tasty, affordable meals for themselves and their families”, and note that “*food literacy builds resilience*, because it includes *food skills* (techniques, knowledge and planning ability), the *confidence* to improvise and problem-solve, and the *ability to access and share information*” (Desjardins et al. v, emphasis added). Based on the outcomes of their research, Desjardins et al. argue that being food literate

means possessing an individual resilience against the current food system, as those who are considered to be food literate have developed the food skills and confidence to fend for themselves in the industrial food environment. Nevertheless, food literacy in this context is also understood to encompass the ability to access and *share* information, which implies both an ability and a desire to facilitate some level of change by communicating with others.

The study conducted by Desjardins et al. spanned eighteen months, and the data collected led researchers to create a personal food literacy model (63). By title alone, the model is focused on an individual – or “personal” – notion of food literacy. To be food literate means that “one is capable and feels motivated to access adequate healthy food and prepare it regularly in a safe, personally satisfactory way for one’s self and one’s family...as well as having the organizational skills to find and use resources to optimally make this happen” (63). In the researchers’ view, to be food literate requires a strong enough skill set, coupled with a solid knowledge base, to navigate the contemporary food environment with the intention of bettering one’s own food experience. Also of note is that the model either relies on technical food skills like cooking, assembling, reading labels, and following recipe instructions, or on deriving personal satisfaction from the process of cooking and eating. Benchmark measures of food literacy in Ontario youth are also articulated in this model, and include: the ability to improvise with ingredients; the ability to use recipes and follow instructions; the ability to use food prep utensils and appliances; knowledge about food nutrition, safety, labels, planning, budgeting, buying and storing food; social connectedness and creativity; feeling healthy; and resilience, self-efficacy, confidence, and control (63).

Within the benchmark measures of food literacy, there is the distinct presence of functional knowledge and technical skills also found in many other definitions and measures of

food literacy. Yet, the authors also include broader – but still individually focused – factors in food literacy, including creativity, social connectedness, resilience, confidence, and control. Thus, Desjardins et al. are defining food literacy from a different perspective than those who maintain a more narrow, technically and functionally driven definition, instead adding ideas around an individual’s social, physical, and psychological environment. This broader idea is incorporated in the authors’ model of external determinants of food literacy – something akin to the social determinants of health. After presenting the personal food literacy model (63), Desjardins et al. explore external determinants required in order to facilitate an individual’s ability to acquire or improve food literacy. While this model still looks at food literacy from an individual level, it also introduces a justice component to food literacy; having certain determinant conditions such as social isolation, poor housing, lack of access to food, low income, or food insecurity (Desjardins et al. vii) is more likely to occur in those with lower socio-economic status. This model of external determinants of food literacy begins to tease out the concept that food literacy can be impacted by larger structural conditions. However, within both the personal model of food literacy and the external determinants of food literacy model, Desjardins et al. do not broach the idea that to be food literate means to actively engage with the structures of the current food system.

Food Literacy as Active Engagement and Emancipatory Learning

Like many newer terms used to discuss issues and trends in the food system, food literacy is one that lacks a consistent understanding. Many define food literacy as an individual responsibility and assert that to be food literate is to exercise control over one’s own food experiences and one’s own well being. However, there are some who step beyond this definition to view food literacy as a means to collective responsibility and community connectedness and

action. For these researchers and authors, to truly be food literate means to engage in democratic practices in the food system, to actively take part in nurturing ecological and environmental health, and to have the ability to disrupt current food systems practices while taking into account social, cultural, economic, and environmental factors. To researchers such as Stinson (2012), food literacy is part of a larger idea of ecoliteracy or environmental literacy; that is, to be food literate is to understand the role of food in our interactions with the environment, and to understand more deeply how food teases out social, political, and cultural issues in our lives. Stinson argues that food literacy is more than the narrow, technical, functional, and individualized notion often ascribed to in nutrition and health circles. It is “a deeper understanding of the complex environmental and social components of food in our lives” (Stinson 2), and “an important component of environmental health and social justice, both within and between global communities” (Stinson 3).

How does the definition of food literacy by researchers like Stinson, Wilkins, Sumner, and Kimura differ from the definition and measures of food literacy put forth by so many other researchers? In their papers, these authors move beyond equating food literacy to improving one’s own well-being through healthy choices, and move beyond measures like reading food labels, knowing how to prepare a healthy meal, or having the motivation to apply nutrition and cooking knowledge toward making healthy choices. Instead, these researchers and scholars understand food literate individuals and communities as having “an increasing ability to disrupt ingrained notions of how food is supplied and consumed within a local area or region” and as having “a stronger voice in expressing what kind of food system they want enacted in their area” (Stinson 53). What is clear in these authors’ understandings of food literacy is that it is not an individualized notion. It is not founded on directing individuals to make changes in their own

lives, or on how to navigate the current system for one's own benefit. As Sumner says, "food literacy must move beyond individualized prescriptions and notions of blame to become a concept that can analyze current foodscapes and model sustainable alternatives" (320).

Additionally, in critiquing the majority understanding of food literacy, Sumner argues that "an individualized approach not only entails a relatively simplistic understanding of the relationship between communication and behavior change, but also fails to take into account social, cultural, economic and environmental factors" (Sumner 319).

To be truly food literate in these authors' minds requires an understanding of the complex interactions within the food system. To be food literate means to have the ability to recognize the realities of contemporary environmental practices and choices, to be able to engage as an active citizen, to exercise democratic rights, and to possess the willingness and empowerment to seek changes and share a voice in the current system. Food literacy, to this small group of researchers, steps beyond the individual. It facilitates participation within the food system in a way that supports the development of a new or alternative system, rather than simply navigating the current system. Kimura highlights this more macro definition of food literacy in her study on food education and food literacy in contemporary Japan. She notes that her definition of – and ways of measuring – food literacy incorporates "a more structural understanding of food-related behaviors and practices as functions of cultural and social influence, one's class position, gender stereotypes, social infrastructure, and the macrostructure of food and agricultural systems" (480). She also pushes for an alternative framework for food education and food literacy that "does not shy away from challenging policies and the structure of economy" (480).

In this more politically charged, action-oriented understanding of food literacy, the concept is defined as something that enables active citizenship. Stinson alludes to this potentially transformative process of food education, which enables food literacy, which enables food citizenship, by explaining:

“A lack of understanding of basic biological processes such as soil erosion in poor farming practices...or factory farming of animals for cheaper protein unfortunately allows students to make food choices that support and reinforce these current realities. It is important for citizens to have this knowledge [food literacy] so they can maintain important democratic values that are being eroded” (Stinson 6).

What she and other researchers are exploring is the idea that if food literacy is encouraged in order to eventually breed some level of change in the food system, and organizations are pursuing food education because of the problems inherent in the current state of how we eat, produce, and grow, then this broader sense of food literacy may be required. To be food literate through this lens is to possess a deep understanding of the food landscape and to have the knowledge needed to act and seek change at a systems level. Having this food literacy, then, creates an appreciation for the ecological facets of our food, the connections it has to the environment, and an awareness of how current practices may be driven by social, economic, or political motivations that do not necessarily maintain the integrity of the environment or of human health. It is a type of food literacy that facilitates food citizenship, which Jennifer Wilkins defines as “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” (269). In this definition, food citizenship is something that cannot be had without food literacy, for one requires an awareness of food in what Stinson deems a nutritional, environmental, and socio-cultural sense (22). This literacy that enables food

citizenship provides eaters with the capability to make better decisions when purchasing or consuming food, where to be an eater and a food citizen is not only a personal duty, but a collective obligation to enact a responsible food system (Stinson 22).

In considering how we understand food literacy, Sumner argues for the inclusion of transformative learning and emancipatory knowledge, which is often a critical measure that is excluded from many understandings and evaluations of food literacy. In her paper on food literacy and adult education (2012), Sumner articulates the inclusion of this knowledge in her broader definition of food literacy, which she frames with Habermas' three knowledge domains. These include instrumental knowledge (for example, nutrition facts, food shopping, cooking, and preparation skills), historical-hermeneutic knowledge (in general, being able to analyze the discourses around food and food systems, and the various narratives that appear), and critical-emancipatory knowledge, which encourages transformative learning and critical reflection. Under the definition of food literacy, this latter domain would encompass knowledge mobilization with regard to a wide range of issues including food justice, food sovereignty, food retail and manufacturing power structures, and many more. Critical-emancipatory knowledge is also more action-oriented toward more systems-based change in comparison to instrumental knowledge, which is often the sole domain used to measure and understand food literacy. In delineating the components of a holistic food literacy into Habermas' three domains, Sumner argues, "without including historical-hermeneutic knowledge and critical-emancipatory forms of knowledge, food literacy is doomed to remain a shallow, apolitical, individualistic conceptualization that will contribute little, if anything, to social change" (Sumner 320).

In such a globalized and contentious food environment, to be food literate is both advantageous to the individual and a necessary pre-requisite to action and engagement. Food

literacy is defined differently in various circles, and is also measured and evaluated based on specific and distinct benchmarks. One general category of food literacy seeks to address a broad, politically and socially grounded form of knowledge, while other categories rely on individualized, depoliticized measures that remain consumer-centric. Given her criticisms of how a majority of people currently define and understand food literacy, Sumner proposes an alternate definition that reframes our understanding:

“Food literacy is the ability to ‘read the world’ in terms of food, thereby recreating it and remaking ourselves. It involves a full-cycle understanding of food – where it is grown, how it is produced, who benefits and who loses when it is purchased, who can access it (and who can’t) and where it goes when we are finished with it. It includes an appreciation of the cultural significance of food, the capacity to prepare healthy meals and make healthy decisions, and the recognition of the environmental, social, economic, cultural and political implications of those decisions” (Sumner 321).

Situating the Various Understandings of Food Literacy

While each researcher, academic, scholar, or organization defines and measures food literacy in a different manner, the various understandings generally fall into one of three patterns identified above, with the two extremes being most prevalent. Firstly, there exists a concept of food literacy founded on teaching the individual to live well and enjoy healthy food and cooking within the current confines of the market. Alternatively, there is a definition of food literacy that challenges current political, social, and economic structures. The former is most widespread in the literature, and is generally supported by those in the fields of nutrition and dietetics, health studies, consumer research, and some non-profit research organizations. The latter is often found in the fields of education or various social sciences, with authors critical of predominant understandings of food literacy. Sumner vocalizes this chasm by arguing that “current

understandings of food literacy are inadequate for dealing with the crises we must learn our way out of – most definitions are apolitical, blame the victim and do not consider the larger context, thus constraining the ‘politics of the possible’” (316), and Kimura similarly asserts that “food education’s relationship with neoliberalization ought to be scrutinized, as it might focus on creating ‘consumers’ who make the right purchasing decisions” (467).

In his 2005 piece on nutrition and its lack of engagement with society and the environment, Tim Lang outlines three different approaches to food, nutrition and health policy: the productionist paradigm, the life sciences integrated paradigm, and the ecologically integrated paradigm (735). Within this model, the productionist and ecologically integrated paradigms oppose each other in values and underlying motivations. Notably, this model parallels the distinct paradigms evident in the literature on food literacy. For example, the more individualized, consumer-oriented, and functionally focused understanding of food literacy echoes the productionist paradigm evident in food, nutrition, and health policy. In Lang’s model, the productionist paradigm directs health policy toward a focus on individual risk, while the approach to diet, disease, and health has an implicit acceptance of societal burden, and the consumer culture emphasizes individual responsibility, self-protection, and a consumerism that is dependent on one’s willingness to be a paying customer. This is strikingly similar to the predominant understanding of food literacy. To be food literate within this paradigm means to gain the knowledge needed to mitigate individual risk in the food system, to operate on the assumption that food growing, manufacturing, and retailing practices are unchangeable, and the culture surrounding this definition of food literacy is one that emphasizes individual responsibility and self-protection against the current food system. The broader, more politically and socially conscious concept of food literacy is similar to Lang’s ecologically integrated

paradigm of food, nutrition, and health policy. In his model, Lang explains the paradigm to include an approach to diet, disease, and health that values the right to be well with an entire food supply geared to deliver health, and the consumer culture as a societal responsibility based on a citizenship model. The broader, more action-oriented definition of food literacy reflects this mindset, for it is rooted in values of collective responsibility and engaging in democratic practices, and is more systems-focused rather than individually or consumerist focused. What Lang's model does is provide an example of how very different approaches to one concept can be understood and compared as different paradigms. Using Lang's concept of productionist and ecologically oriented paradigms makes it possible to envision the patterns in food literacy definitions and understandings, and facilitates situating researchers' analyses and views of a newer term that remains somewhat contentious or uncertain.

Measuring Food Literacy

On a practical level, it is necessary to consider not only the main categories of how food literacy is defined, but also the benchmarks of food literacy. If one of the primary purposes of this paper is to evaluate whether, and to what extent, the FLY program fosters food literacy in its participants, it is prudent to develop a collection of benchmarks against which to compare their experiences. Based on the literature reviewed, the benchmarks of food literacy are vastly different depending on how one chooses to define the concept. However, if one operates with two main paradigms – again, drawing on Lang's model – there exists the individual responsibility, functional approach to food literacy (the “neoliberal consciousness” paradigm), and the more action-oriented, politically and socially motivated approach to food literacy (the “critical consciousness” paradigm). While benchmarks of food literacy are summarized according to

author in Table 2, the table below (Table 3) consolidates by category the benchmarks and measures of food literacy identified in the literature reviewed.

Table 3: Benchmarks of food literacy as identified in academic and organizational literature

	Benchmarks of individual, consumer-oriented, functional approach to food literacy ¹	Benchmarks of contextualized, systems-based, and politically/socially motivated approach to food literacy ²
FREQUENT ³	<ul style="list-style-type: none"> ▪ Increased nutrition knowledge ▪ Improved cooking skills ▪ Cooking more meals from scratch; ability to cook for oneself ▪ Ability (and desire) to purchase healthy foods ▪ Improved food safety behaviors ▪ Ability to budget/plan meals 	<ul style="list-style-type: none"> ▪ Knowledge and awareness of the multiple dimensions of food (broader engagement) ▪ Ability to reflect critically on food and the food system, interest in seeking change
OFTEN ⁴	<ul style="list-style-type: none"> ▪ Increased consumption of fruits and vegetables 	<ul style="list-style-type: none"> ▪ Awareness of socio-political impacts of the food system and ability to analyze associated discourses ▪ Interest in active citizenship as it relates to food
SOMETIMES ⁵	<ul style="list-style-type: none"> ▪ Interest in trying new foods ▪ Confidence and motivation to use food knowledge to make healthy choices ▪ Ability to make informed decisions and judge marketing, new products, and quality of food ▪ Ability to influence family/friends in purchasing/cooking/eating decisions ▪ Satisfaction, creativity, confidence, resilience because of food knowledge and skills ▪ Ability to cook with substitutes ▪ Knowledge of where food comes from & various food terminology (eg. GMO) 	<ul style="list-style-type: none"> ▪ Ability or attempts to disrupt current food system through informed actions ▪ Exercising food-related behaviors that support a democratic, socially and economically just food system ▪ Knowledge and awareness of food & agricultural systems and their relationship to environment and health

¹ Out of ten scholarly articles fitting this paradigm

² Out of five scholarly articles fitting this paradigm

³ Identified in at least 60% of the literature with the indicated food literacy paradigm

⁴ Identified in 26 – 59% of the literature with the indicated food literacy paradigm

⁵ Identified in 25% or less of the literature with the indicated food literacy paradigm

Understandably, the benchmarks of a more individual, functional approach to food literacy are more easily measured. They rely primarily on functional knowledge and technical skills such as preparing healthy meals, knowing nutrition facts, or opting to consume more fruits and vegetables. In comparison, the benchmarks for the broader understanding of food literacy are more vague. Measures are more qualitative and grounded in a change of values or outlook.

Nevertheless, this understanding of food literacy can be evaluated based on the language an individual employs to describe their opinions on food and the food system, and on their general commentary on their relationship to food and their engagement with food issues.

Understanding Food Literacy

This chapter set out to establish to what the term “food literacy” refers, and to establish how one can know when an individual is food literate. A thorough review of the literature reveals that three general understandings of food literacy exist, with two being most prominent. First is the more individualized approach rooted in functional knowledge and technical skills, and driven by the neo-liberal ideology of self-reliance. This approach places the burden of literacy and action on the individual as a consumer, and considers someone who is food literate to have the ability to make healthy choices and to have sound cooking and nutrition knowledge.

Additionally, there exists a more politically and socially aware understanding of food literacy grounded in systems thinking and an ability to engage with the food system. This type of food literacy encourages active involvement in disrupting problematic food systems practices, and facilitates participation in the food system rather than navigating it simply for one’s own benefit. In essence, the individual version of food literacy seeks to create food literate *consumers*, whereas the more politically and socially grounded version of food literacy seeks to create food literate *citizens*.

Benchmarks of a food literate individual must thus be developed for each food literacy paradigm, given that the underlying ideals of each are vastly different. Unsurprisingly, the benchmarks for individually driven food literacy are comprised mostly of functional knowledge, strong cooking skills, and desirable consumption habits. Alternatively, the benchmarks for the more contextualized and systems-based food literacy are centered on critical reflection,

awareness of the multiple dimensions of food, and an overall broader engagement with contemporary food issues. Therefore, depending on the definition guiding food literacy, it can either re-skill people on *how* to interact with food, or on *why* we interact with food. Keeping in mind both understandings of food literacy demonstrates not only how terminology in food studies is continually being negotiated, but also provides a sound background in the complexities of a concept that is driving the development and implementation of food education programs in North America.

Chapter Four: Community-Based Youth Food Education at The Stop's "FLY" Program

On a mostly residential street punctuated by shoebox-sized convenience stores, The Stop's primary location sits on the ground floor of a high-rise community housing building. It is an organization that bills itself as a community food center – an organization that is described by the former executive director as “truly a place where people come to cook, grow, eat, learn about and advocate for good food” (Saul and Curtis 122). Having begun out of a church in the 1970s as a community advocacy center turned food bank, The Stop has, from its conception, sought to position itself as something other than a band-aid fix. Claiming to have “retained its activist roots” (Saul and Curtis 10) throughout the organization's multiple transformations, The Stop explains its main work as advocating for and with low-income people about food issues, for “it's astonishingly rare [in food] for anyone to touch on issues of justice and equality” (Saul and Curtis xv). As a community food center, The Stop offers a range of programming, from a drop-in healthy meal program to a more traditional food bank, along with community gardening programs, cultural kitchen and cooking programs, pre- and post-natal nutrition and support programs, and sustainable food education programming for children and youth.

The Stop has garnered significant attention in recent years thanks to the construction of its second location – commonly known as the “Green Barn” – in a middle-class neighborhood northeast of its original location. Notably more affluent, the Green Barn serves as the “pretty face” of the organization and has welcomed news crews, MTV, and even a visit from celebrity chef Jamie Oliver. As its fame has grown and as the organization’s principles and structure have guided the development of two new community food centers in Perth and Stratford, Ontario, The Stop’s programming has expanded; nevertheless, its website insists the organization is still driven by its mission statement. Originally drafted in 2000, The Stop’s mission is to “increase access to healthy food in a manner that maintains dignity, builds community and challenges inequality” (Saul and Curtis 52). Moreover, The Stop centers its model on three facets: food access, supported by its food bank and healthy drop-in meals program; food skills, supported by cooking and gardening programs and food literacy for children; and engagement and education, supported by programs that facilitate community members to have a voice in food and social justice issues (Saul and Curtis 2013).

In the recently published book on the history of The Stop and its growth from advocacy-driven food bank to a model for community food centers in Canada, Saul offers perhaps a more hyperbolic description of The Stop and its history, programs, and current impacts – from its “gritty” location to its revolutionary role. While some of this portrayal may be for literary effect, The Stop’s self-description of its desire to change the food system and the organization’s perception of its role in advocacy is rooted in truth. When considering individual programs at The Stop – such as the Food Leadership for Youth program – it is essential to bear in mind how the organization positions itself among other community organizations and food education efforts, for this foundation should – in theory – infiltrate all programs. As Saul says, “this isn’t

one-off advocacy or simply about handing people a placard; it's more subtle, time-consuming, and, we believe, effective. Through our programs, The Stop builds relationships and establishes hope and trust, laying the essential groundwork so that people can express themselves...with their own voices and actions" (108-109). The Stop is critical of those who see food as a pure commodity; the organization believes in education and empowerment that strives not to offer an individualized or short-term solution, but to provide people with the tools and knowledge to critically engage as vocal and politically aware citizens.

The Food Leadership for Youth (FLY) Program – Approaches to Teaching Food Literacy

Having recently completed its fourth year, the Food Leadership for Youth (FLY) program is one branch of The Stop's sustainable food education efforts for children and youth. Forming a primary component of its operating model that incorporates food skills and food literacy education for children, the FLY program bills itself as an after-school program for high school girls "who want to learn how to cook while engaging in issues related to nutrition and environmental sustainability". The program also features a strong leadership component "that allows participants to solidify food concepts and skills learned while gaining volunteer hours for helping to educate their peers, friends, and family" (Food Leadership for Youth, The Stop 2012). In concept, the FLY program makes use of cooking to not only teach food skills, but to initiate discussions and lessons around food systems issues, from nutrition to industrial food, health, and more. The FLY registration form offered to parents and participants echoes this philosophy, explaining that "FLY is not just about cooking and eating" (FLY 2013-2014 Registration Form). Uniquely, the program grounds itself in cooking skills while also aiming to provide workshops on nutrition, sustainable food systems learning, and gender and diet issues. As clarified on the program website, FLY seeks to accomplish its learning goals by incorporating activities such as

hosting cultural food days, planning and executing food demonstrations at school, creating food videos, and writing or editing a FLY magazine (Food Leadership for Youth, The Stop 2012). Nevertheless, when considering the FLY program as a case study for research, it is essential to note – as discussed further in Chapters Five and Six – that while these goals and activities are what FLY promotes as its model both externally and internally, in practice only a few of these activities and approaches are incorporated.

In order to provide context for the FLY program and in order to analyze FLY's approach to executing the transition from food education to food literacy, I reviewed a selection of internal program documents. In addition to the FLY participant registration form and external media mentioned above, I also reviewed the program's internal logic model and internal work plan, along with the weekly agendas and recipes distributed to volunteers and participants. The FLY program logic model is a confidential document that is intended to drive the goals and outcomes of the program. Given that it is confidential, I have excluded any details that are not pertinent to this discussion and analysis. I have highlighted significant points that illustrate the program's goals and mission, as well as its structures and processes as related to food education and food literacy. Developed by the predecessor to FLY's current program coordinator, the logic model defines the program's audience as teenage girls (13 – 17) in the Davenport West area who are low-income or newcomers. Specifically, the program's goal is "to develop healthy, *food literate*, confident, and empowered youth women" (emphasis added). According to the logic model, one of FLY's primary goals is to increase food literacy in its participants, and in essence, the program goals adopt two forms: one, to increase self confidence and inner strength through food and community; and two, to facilitate an increase in food literacy to the participants.

Both the internal logic model and the internal work plan adopt language, objectives, goals, and activities that depict the program's intended approach toward food literacy. If one of the primary questions of this research paper is to consider whether, and to what extent, a food education program like FLY can foster food literacy in its participants, then it is equally necessary to ask what approach the program proposes or follows to instill food literacy. Reviewing the logic model and work plan clarifies that the FLY program understands and approaches food literacy from a dual perspective; that is, while FLY has a foundation of food skills-based food literacy that aligns with the individual behavior modification approach to food literacy as discussed in Chapter Three, the program also seeks to enable participants to critically engage, to instigate change in systemic food issues, and to increase awareness of food systems concepts. Ideologically, the FLY program adopts both paradigms of food literacy – that of the individual, consumer-oriented and functional approach to food literacy, and that of the more contextualized, systems-based and politically or socially motivated approach to food literacy.

Within its logic model, the FLY program voices three main objectives as a subset of its program goal, with two of these objectives relating to food and food literacy. The logic model asserts the program's objective to "increase participants' skills, knowledge, and behaviors around healthy food", which supports the program goals of developing healthy and food literate young women, and also parallels the functional, individual behavior modification approach to food literacy. Language used within the logic model to describe associated outcomes echoes language often found in discussions on the individual, consumerist approach to food literacy: for example, the logic model states the major outcome as having "more positive attitudes and increased knowledge and frequency of *healthy food choices* among participants" (emphasis added). It is stated within the logic model that participants' progress towards this first goal can be inferred

based on: observed discussions of participants making healthier food choices, participants demonstrating new cooking skills during the program, participants cooking without a recipe, or feeling comfortable cooking with substitutes. These measures of inferring progress towards the stated objective closely parallel the most widely used individual and consumerist-oriented measures of food literacy, as outlined in Table 3 (Chapter Three).

In contrast, the logic model's second food literacy-related objective is "to increase program participants' capacity to apply new knowledge to take effective action on food systems issues in their community", which speaks towards a food literacy of critical consciousness, for the objective is to enable participants to take action on food systems issues. Assumed outcomes of this objective include "increased participant knowledge of food system, social justice, and AOP [anti-oppression] concepts and issues", along with "active participation in actions to address systemic issues", "greater engagement by participants", and the ability to "critically analyze" new information. The two food literacy-related objectives in FLY's internal logic model both seek to meet the goal of developing food literate young women. However, the objectives each align with one of the two food literacy paradigms explored in Chapter Three, for the objectives are grounded not only in food skills and in facilitating healthy choices, but also in increasing awareness of food systems issues and fostering the girls' ability to critically engage with and act on these issues.

The FLY program's work plan serves as a more detailed outline of program goals and activities. Similar to the internal logic model, the work plan is a confidential internal document; thus, I have not included lengthy direct quotations, instead relying on analysis to understand FLY's theoretical approach to teaching food literacy within its food education model. The work plan's goals are similar to that of the logic model, incorporating both food literacy paradigms

identified in Chapter Three. For example, the individual, functional, consumerist paradigm is present through the goals of “increasing the food skills of participants through hands-on programming” and “building knowledge and positive attitudes towards healthy eating principles”. Yet, the broader, more politically and socially aware and engaged citizen paradigm is evident in the goals of “fostering the leadership capacity of participants to promote healthy eating or food issues to their peers and their families”, “building knowledge of local and global food issues”, and “increasing knowledge of poverty and food systems issues and creating opportunities for community members to take effective action on these issues”. Activities to accomplish the work plan’s goals are outlined, with intended activities to include: developing and planning healthy cooking lessons and tying them to food systems issues; having participants organize and implement school presentations; having FLY participants pick and choose issues on which they want to advocate; reframing and restructuring the curriculum through an anti-oppression pedagogy; initiating a FLY youth council advisory committee; organizing a FLY cook-off competition; and connecting the FLY girls to other programs and events at The Stop.

The goals, outcomes, objectives, and activities related to food literacy in both the logic model and the work plan demonstrate that FLY strives to take a multi-pronged approach to instilling food literacy through its food education programming. On paper, the FLY program seeks to teach food skills and individual behavior modification by encouraging healthy choices, which aligns with the individual, functional, and consumerist food literacy paradigm identified in Chapter Three. Additionally, on paper, FLY seeks to ultimately encourage participants to adopt a broader, more engaged connection with food systems issues by fostering the critical analysis participants require to then take action and advocate for change beyond the individual. It is unsurprising that the FLY program seeks to approach food literacy from two paradigms and to

step beyond the individual behavior modification approach to food literacy, given The Stop's philosophical underpinnings. Nevertheless, only some of the activities, goals, objectives, and outcomes elaborated in the logic model and work plan came to fruition during my time as a participant observer and volunteer with the FLY program. Those that did were rooted more in skills-based food literacy and individual behavior modification, and this discord is explored further in Chapters Five and Six.

Wednesdays at 1884 Davenport

FLY takes the form of once weekly sessions from October to April or May, where program participants gather on Wednesdays after school in the community room of The Stop's 1884 Davenport location. A mix of grade nine, ten, and eleven girls, they come to the community food center for the food and the friendships. FLY participants generally live in the area and attend neighborhood schools including Loretto College, Oakwood Collegiate, and Bishop Morocco. They are some of the lowest rated schools in Ontario (Cowley and Easton 2014), and while some of the girls take part in extra-curricular and leadership activities at school, others engage in very few activities outside of school or can be found working part-time for the family business or in retail and fast-food.

The community room (colloquially known as the "blue room") and the commercial kitchen serve as the central spaces in which FLY operates. The blue room is stark, institutional, and a rather blank slate, while the commercial kitchen is brimming with large appliances, shelves of spices, and radio tunes mixing with welcoming smells from the oven. The girls arrive around four o'clock; sometimes there is an icebreaker to open the two-hour programming session, while other weeks the participants transition directly into cooking. Agendas prepared by the FLY program coordinator describe recipes for the afternoon, and supplemental papers outline recipe

steps, ingredients, and fun facts. Themes direct some of the programming sessions and include topics such as making healthy versions of fast food, while other weeks are driven more by the girls' interests and tastes. Moving from the blue room to the kitchen, participants spend at least an hour cooking – first watching a demonstration by the program coordinator or a volunteer on key food skills for the week, and then working independently or in pairs to prepare ingredients and follow the week's recipes. Volunteers and the FLY program coordinator support the cooking process and facilitate the meal preparation, but attempt to remain in the background as much as possible, running loads of dishes or answering questions when needed. Meanwhile, participants are using the stove, the grill, the commercial stand mixer, blenders, or a variety of knives to prepare anything from burgers and gourmet pizza to salads, sandwiches, and cultural food like banh mi. Following the cooking process, all participants either gather around the large island in the kitchen or around the table in the blue room to dine communally and enjoy what was prepared. It is a chance for the girls to decompress and connect with each other and with the staff. Post-cooking discussions are almost always informal and rarely directed. The program director or a volunteer will often pose a question related to the week's recipes or participants' food-related activities in the days prior, and other times the girls offer tidbits about their food choices or experiences at home and at school.

For a food education program that strives to instill food literacy as one of its primary goals, there are glimpses of conversations on food systems issues that punctuate the dominant discussions and hands-on action around food skills and cooking. Yet, the primary driver of Wednesdays at 1884 Davenport is the week's recipes, the focus on chopping, tasting, adjusting, improvising throughout the cooking process. The question of whether the FLY program succeeds in facilitating food literacy in its participants is explored and answered in the following chapter.

Chapter Five: Facilitating Food Literacy in Food Education

At its core, the FLY program seeks to facilitate the development of food literate young women. This goal was established at the outset of the program with the creation of FLY's internal literature (as discussed in Chapter Four), and is pursued through the actions and intent of the staff and volunteers who animate the program on a weekly basis. Given that the promotion of food literacy is a central component of FLY, one of my guiding research questions was whether, and to what extent, food literacy is actually facilitated in food education programs like FLY, and how the FLY program is making space for the reskilling of its youth participants. FLY is only one example of the many food education programs across Canada that continue to grow in number as public and academic interest in food and health becomes stronger. Yet, the FLY program is both a unique and important case study, for the organization under which it operates is a fixture of Toronto's food landscape and a leader in community food education and advocacy. The Stop is one of the most recognizable faces of the food movement and of food advocacy in Toronto, and the FLY program is a central part of the organization's sustainable food education programming. FLY is not an inconsequential program running out of a struggling organization; rather, it is the complete opposite. The Stop serves as an example to other community food organizations – so much so that two new community food centers have opened in Ontario based on The Stop's model, with four more anticipated across Canada in 2014 ("Growing CFCs", CFCC 2014). The FLY program, too, then also serves as an example to other community food centers of how food literacy is pursued in youth-centered food education efforts.

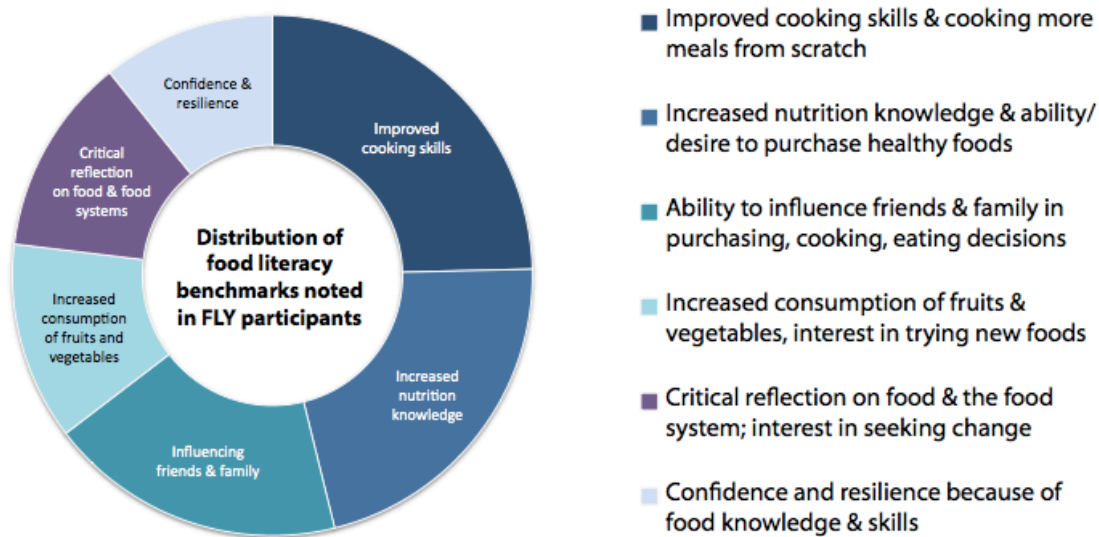
In Chapter Three, I established the two primary food literacy paradigms present in the literature. Food literacy is understood through three varying approaches, with two contrasting definitions dominating: one is an individualized approach rooted in functional knowledge and

technical skills that places the burden of literacy and action on the individual's choices as a consumer; the other is a politically and socially engaged approach that facilitates systems thinking and active involvement in and analysis of the food system. The former approach to food literacy teaches the individual to live well and enjoy healthy food within the current confines of the market, whereas the latter approach seeks to challenge political, social, and economic structures that bear some responsibility for the contemporary challenges of the food system. With these differing paradigms, there also exist varying means of evaluating or measuring food literacy. For example, functional knowledge and technical skills such as increased nutrition knowledge, improved cooking skills, or increased consumption of fruits and vegetables are benchmarks prevalent in the more individual, consumer-oriented and functional food literacy. On the other hand, knowledge and awareness of the multiple dimensions of food, or the ability to critically reflect on the food system and seek change, serve as prime examples of benchmarks of the more politically and socially motivated and actively engaged approach to food literacy.

In order to answer my question of whether, and to what extent, food literacy is facilitated in the FLY program, I reviewed my interviews and substantial field notes to uncover the girls' learning experiences throughout the program. I was able to discern what food literacy the participants gained by coding the various measures and benchmarks of food literacy that emerged, and by comparing incidences of each to conclude which measures and benchmarks of food literacy were most prominent. In this chapter, I review the most prevalent benchmarks of food literacy that I discovered in the FLY girls' experiences, based on the benchmarks of food literacy identified in Chapter Three (a visual summary of the six most prominent types of food literacy gained by FLY participants is depicted in Chart 1, below). I also discuss notable themes that emerged, including the differences between intention and reality in programming. At a

glance, my research revealed significant patterns based on the repeated prevalence of certain benchmarks of food literacy. In particular, language, conversations, and assertions of increased nutrition knowledge, cooking skills, and ability to teach others and influence friends and family were most frequent. Other benchmarks were present, though not quite as prevalent. In general, the benchmarks of food literacy that were mentioned the most tended to fall under the individualized, consumerist food literacy paradigm. Nevertheless, tones of a politically and socially aware food literacy materialized as the girls shared some fascinating conversations around their understandings of contemporary food systems problems.

Chart 1: Distribution of the six most prevalent food literacy benchmarks in FLY participants as coded in research data



“I’m Not Afraid to Cook”: Improved Cooking Skills, Cooking More Meals from Scratch

For a food education program that touts its main activity as cooking, it is unsurprising that the most prominent benchmark of food literacy that emerged in my field notes and interviews was improvement in the girls’ cooking skills, along with their tendency to cook more meals from scratch. This aligns with one of the most frequently occurring measures of

individualized food literacy identified in my literature review (see Table 3, Chapter Three). Throughout the program, each of the session's goals was either described verbally by the program coordinator or written out in the week's agenda; these goals often focused on the acquisition of certain cooking skills, such as exposing the girls to different spices and spice mixtures, practicing chopping skills, or seasoning and tasting food for flavoring. Whether we were demonstrating chopping and stove skills when making jerk chicken and coleslaw while exploring regional and cultural flavor combinations, or facilitating a "snack challenge" to encourage improvisation in the kitchen, the week's goals were frequently centered on building functional and technical cooking skills. My field notes correlated with these session goals, and I noted early on that the participants' repertoire of knowledge was expanding. I observed a progression in capacity to multi-task, to identify different herbs, to cook without following a recipe, to season and flavor food with ease, to more intuitively chop fruits and vegetables in a manner suitable for the recipe, and to identify and appropriately employ kitchen and cooking tools. On February 26, 2014, one participant arrived and jubilantly shared how she had made pizza dough from scratch over the weekend after learning how to do so at FLY the week before. I noted:

"It's awesome to hear how she tries to make so many things that we do in the program at home, and shows that she is becoming more comfortable in the kitchen and more outwardly enthusiastic in sharing her interest in food." (Field notes, February 2014)

Beyond my field notes, interviews with FLY participants, staff, and volunteers all reinforced that one of the main forms of food literacy acquired through the course of the program is cooking skills.

“Before the program, I was probably like a 4 or a 3 [out of 10]. I wanted to cook but I didn’t know how. And now I’m pretty good. Like an 8.” – FLY participant March 2014

“I think before I didn’t care what knife I was using. Now for sure I know there’s a bread knife, meat knife.” – FLY participant March 2014

“My knowledge grew on little things like oils and salt and spices and things like that.” – FLY participant April 2014

“I definitely saw, and heard, the kinds of comments like... ‘I’m not afraid to cook’ or you know, some comments like ‘I wish I had more people to cook for at home’.” – FLY volunteer March 2014

“They can kind of read a recipe and make something.” FLY program coordinator February 2014

“At the beginning before FLY it [cooking skills] was just probably average, like before people even go into the basics of how to do everything. I think it went up [after FLY].” – FLY participant April 2014

Many more references to improved cooking skills were present in my data. However, also prominent were references to an increase in cooking for oneself or for others. The FLY participants I interviewed all asserted that they cooked more for themselves now than they did before, and that they often cooked for their families. My field notes also recorded observations of girls who came to sessions and shared how they had cooked for their families in the preceding week.

“So weekends I always cook for my mom and I, and during the week if I want to whip up something I’ll try something new with my mom.” – FLY participant April 2014

“[FLY participant] cooked for her parents last week because her mom has been tired while her dad is away; she took the initiative to cook for her brother as well.” – Field notes March 2014

“I Want the Good Stuff”: Increased Nutrition Knowledge, Ability/Desire to Purchase Healthy Foods

During the first FLY session following winter break, we explored healthy options to fast food and discussed the nutritional makeup of fast food versus homemade alternatives by making our own burgers. After prepping condiments and toppings that included caramelized onions, sautéed mushrooms, and an herbed mayonnaise, the FLY girls shaped ground beef patties and fried them on the flat top grill before assembling their burgers and enjoying them with a side of baked sweet potato fries. While the girls ate, the FLY program coordinator distributed handouts that illustrated the nutritional breakdown of a typical McDonald’s meal compared to the burgers we had made. An informal discussion arose as some of the girls demonstrated interest in the number of calories or amount of sugar and sodium in the contrasting meals. Of note was the participants’ keen interest in nutrition, which was a trend that arose in my field notes. This was supported by a strong presence of commentary in my interviews on how the FLY program made participants more aware of or able to judge healthy foods, and increased their desire to purchase or consume healthy foods.

“Before the FLY program, I think I was cooking a lot but I wasn’t cooking well...but now ever since, I cook for myself three or four times a week and I think that’s because I am so keen on getting great ingredients, I want the good stuff.” – FLY participant March 2014

“I definitely saw, and heard, the kinds of comments like ‘oh I understand why and how I should eat better now’.” – FLY volunteer March 2014

“When I go to the grocery store I always read labels a lot more than I used to, like if things say 50% less sugar or organic or things like that. So I always choose food now based on things like that.” – FLY participant April 2014

“Now, my lunch choices are different. I love packing my lunch...I got more creative with it...the kale salad I just made on Monday.” – FLY participant March 2014

“Yeah, I do try to make better decisions when shopping or when teaching my brother about foods and things like that.” – FLY participant April 2014

“I think it does [increase the girls’ food literacy]...like with why it’s important to choose whole foods and why they’re healthy.” – FLY volunteer January 2014

My data revealed that FLY participants were keenly interested in learning about healthy foods and making healthy decisions. Their language spoke to a desire for “good” ingredients and a duty to make better choices. Some comments invoked the idea of reading labels to judge food based on its nutritional content, while other comments illuminated how FLY impacted the girls’ preference for making their own lunches because it is healthier than eating out. Much of the wording chosen by both participants and volunteers echoed the individual and consumerist food literacy of self-reliance and behavior modification, as they spoke of making better decisions and healthier choices, and of having the knowledge to do so.

“I’m Trying to Teach My Brother”: Ability to Influence Family and Friends in Purchasing/ Cooking/Eating Decisions

While I did not find the benchmark of teaching others or influencing their consumption habits to be as prominent as others in my literature review, the number of mentions it received in my data was almost equal to the number of occurrences for the benchmarks of improved cooking skills and nutrition. Based on the girls’ interests, our conversations during the interview process turned to how the FLY program facilitated their ability and interest in passing on their newfound knowledge to their families and friends. As our conversations turned toward educating their

social circles, I questioned whether the girls' families were receptive to their teachings, and what motivated the girls to interact with their families about food.

"I bring my mom sometimes [to the farmers' market]. If not, I go by myself. I brought my sisters and they laugh sometimes because they're like 'what are we doing here, let's go shopping' but sometimes they'll hang out. My mom loves it...I think I've been pushing her so she goes more often because of me." – FLY participant March 2014

"One of my friends doesn't eat French fries anymore because I made her kale chips." – FLY participant March 2014

"I try to convince my mom to switch to better foods. I'm kind of strict with her just because she's my mom." – FLY participant April 2014

"I'm still trying to keep really healthy. Obviously it's hard because the food industry – the fast food industry – is just everywhere, it can sometimes be more convenient, once in a while. But I still do try to keep it up a lot, especially for my grandfather, my grandparents. Even I'm teaching them new things they can do." – FLY participant April 2014.

Interviews with FLY staff and volunteers also tangentially moved toward how the program enables participants to influence their families' eating habits. The program coordinator noted how she witnessed that the program made it possible for the girls to bring food home and engage their family, which subsequently drew family members in to conversations around food (FLY program coordinator February 2014). Moreover, the program coordinator and volunteers provided me with numerous examples of instances they had overheard or witnessed.

"I definitely saw, and heard, the kinds of comments like... 'oh when I go to the grocery store now, I look at where food comes from or I try and influence my parents, or I have influenced my parents to buy local food or to buy healthier food'...yeah, lots of examples like that." – FLY volunteer March 2014

"She took control over that [shopping for the family's produce] and is able to do that in her family, and her mom is super proud of her, and you don't know where that's going to go." – FLY program coordinator May 2014

“[She] will bring some of that knowledge back, like she made her dad chocolate or whatever – not the healthiest thing – but she was like ‘oh that was so easy!’. So now it’s like, now that she has it in her mind, she’s more inclined to tackle more recipes and have the confidence to share all that with her father.” – FLY program coordinator February 2014

Based on the number of mentions in the course of my research, the girls’ interest in influencing their friends’ and families’ eating decisions is a significant marker of how the FLY program increased their food literacy.

“They Usually Come Out of It Liking Kale!”: Increased Consumption of Fruits and Vegetables and Interest in Trying New Foods

Staff and volunteers never forced FLY participants to eat new foods, but the program was structured to introduce the girls to new ingredients every week, and to encourage the consumption of fresh produce. During the burger making session, we asked all participants to try at least one new topping. I noted in my field observations: “Even [FLY participant], who always ate her burgers plain, tried the herb mayo. The other girls piled on many toppings, most of which were unfamiliar to them, and they all went back for seconds. By encouraging them to try something new each time, they are becoming familiar with different ingredients and learning to like things that they either thought they didn’t, or are discovering new ingredients” (field notes January 8, 2014). Six weeks later, I also observed: “When we ate the curries, both girls devoured them, which was particularly notable as [FLY participant] can be a little iffy with vegetables, but she ate it all and seemed to enjoy it” (field notes February 26, 2014). My field notes were supported by FLY participants’ assertions and the observations of FLY volunteers.

“I also liked that we were trying things that I wouldn’t have tried otherwise. I mean I love trying new food but there were things that

"I'd never worked with before, that I'd never seen before." – FLY participant March 2014

"I liked that we were exposing our taste buds to new flavors and sorts of things." – FLY participant March 2014

"It's definitely been effective in that way I think...watching their expressions when they see a vegetable they've never seen before. Or [FLY participant] adding vegetables for the first time to her sandwich." – FLY volunteer May 2014

"They're trying new things." – FLY program coordinator May 2014

"Exposure to new foods [is what they got most out of the FLY program]. They usually come out of it liking kale!" – FLY program coordinator February 2014

The increased consumption of fruits and vegetables, and an interest in trying new things, are two benchmarks of an individualized and consumer-oriented functional food literacy that were identified in Chapter Three. The language and conversations present in my data illustrate that the girls not only tried new foods during the FLY program, but also became more open to consuming more fruits and vegetables as part of their daily meals. Near the end of the program, one FLY participant asked if we could make fruit smoothies for dessert; they were not intended to be on the menu, but she had enjoyed the fruit smoothies so much the week before that she sought to include them again. We acquiesced, for who can discourage fruit as dessert?

"We Should Be Doing Better, Right?": Ability to Reflect Critically on Food and the Food System; Interest in Seeking Change

In my interviews with FLY participants, I asked what concerned them about the food system. The answers I received were mature and thoughtful, and demonstrated an ability to reflect on the food system. The participants showed an interest in change, though not an interest in *seeking* change. I include this benchmark of food literacy with a caveat; while the FLY program

undoubtedly instilled the girls with an ability to reflect on problems in the food system and to express a desire for an alternate reality, the critical analysis present in the girls' thoughts was completely grounded in the individual and in change occurring through personal choices and decisions. Technically, then, there were instances in conversation where this benchmark appeared, but the conversations did not reflect the ultimate essence of the paradigm under which this benchmark falls. That is, the benchmark of *critically reflecting on food systems and an interest in seeking change* is one of the primary ways of evaluating the presence of a broader, more socially and politically aware and systems-oriented food literacy. My interviews revealed that FLY participants were able to grasp some problems in the contemporary food system; yet, their perspective on these issues was rooted in the individual, consumerist ideology of self-reliance and personal choice.

“We should really be putting a lot of money into, or care into [food]. It's nurturing our lives. But if we realize that then I think people would make more conscious decisions on what we eat...we should be doing better, right? That's just how I see it. What can we do? We can be living examples.” – FLY participant March 2014

“Of course there are places that don't have the accessibility...but I just think if it [good food] is something you really care about, you make an effort to look, because it's here, it's everywhere...it has to take the person to decide that they want to go out and look for it.” – FLY participant March 2014

“You don't laugh at a joke if it's not something you believe in. So you don't participate in something because you don't want to see that grow. What is that saying? In that case, I just mean like, I don't want to give more money to something I don't believe in because then it's just going to continue. So eating at a fast food joint, when I can make the opposite choice to go somewhere where it's fresh and selective and so on, obviously I want to see more of this so I'm going to feed into that.” – FLY participant March 2014

“Thinking back to my mom and my dad and things like that. Like they're both working a lot so it's just more convenient for my mom at

the time to have frozen pizza ready than to make it from scratch. So yeah that's another [problem with the food system].” – FLY participant April 2014

“We were taught different reasons as to why families and people may have food problems, like getting to healthier foods instead of junk food...obviously if you live right by a McDonald's it's easier to get that food than to have to walk or drive five kilometers to the nearest food mart...it's also cheaper to afford that...especially if you're a single parent, my mom's a single parent.” – FLY participant April 2014

These excerpts highlight some of our conversations where it is apparent that FLY participants are often aware of the problems in the food system. Nevertheless, the solution is seen to be individual, based on conscious decisions about food consumption. It is asserted that people do not care enough to be healthy, that we should vote with our forks, and that individuals should seek out cheap and affordable produce if it is not accessible in the neighborhood. Therefore, while these conversations demonstrate the ability to reflect on the food system, the girls are not often aware of the larger socio-political web that impacts how we eat. They blame the individual rather than the system for the resulting problems, and approach the issues from a consumer mindset.

“It Made Me Feel Better About Myself”: Confidence and Resilience Because of Food

Knowledge and Skills

As evidenced in the FLY logic model and work plan (see Chapter Four), the program believes strongly in fostering participants’ confidence and empowerment. This translated into my data, for the food literacy benchmark of confidence and resilience was woven through my field notes and interviews. Both the participants and the staff noted how the FLY program transformed the girls’ confidence.

“I went into the program and I was learning all these sorts of things and it made me more confident, and I was cooking at home and I was learning about real ingredients and what local and organic food meant and from that I definitely, I feel like I got more confident with food. And food is something that I love, so it turn it made me feel better about myself somewhere down the line.” – FLY participant March 2014

“I think it kind of opened my eyes to see how much I really did love cooking, and I figured if I might be really good at it I could have a career.” – FLY participant April 2014

“When I cook, I just feel like I am good at it. I'm not trying to be egotistical. And I just feel really happy when I'm cooking. Like I get into my own little world.” – FLY participant April 2014

“I...help build their confidence, using food skills, making their own food as a way to build their confidence and their capacity to make something, to create something from beginning to end, to use their hands and see the value in that, to see cooking as a therapeutic thing.” – FLY program coordinator February 2014

“That's where the empowerment piece comes from, seeing themselves in that food because it came from them.” – FLY program coordinator February 2014

Cooking brand new foods, creating full meals, and connecting over their different food cultures all nurtured a confidence in the girls not only when working in the kitchen, but also fostered a confidence and a comfort in food – a belief in their competence to fend for themselves and be resilient in a tumultuous modern food system.

FLY as a Catalyst – And Other Themes

The six benchmarks explored above are those that were most prevalent in my data. Nevertheless, other themes emerged that are worth discussing in this analysis. While there were a small number of mentions of an increased ability to cook with substitutes, and one or two mentions of an increased awareness of socio-political impacts of the food system, there were also approximately a half dozen instances where reference was made to an increased knowledge and

awareness of the multiple dimensions of food. This is one of the primary benchmarks of the broader, more actively engaged food literacy paradigm identified in Chapter Three, and is a benchmark that indicates a broader engagement with the food system. Not nearly as prevalent as other benchmarks, the girls still demonstrated an increased awareness of the kinds of food they were consuming, the sourcing and origin of their food, and the difficulty of eating well depending on one's background and circumstances.

“I think after the program, it wasn't about just eating, eating to eat, it was more about ingredients, about mindful eating, and really thinking, how was this prepared? You know, understanding all aspects of food, not just the eating aspect.” – FLY participant March 2014

“I think in the FLY program we were avoiding packaged, processed foods. So there's something I heard that you shouldn't be eating it if it doesn't look close to what it did on the farm.” – FLY participant March 2014

“They [FLY staff] taught me a lot about how hard it can be for certain people to even get food. So it really made me really appreciate the fact that I even have a garden or that I have grandparents who don't take me to McDonalds everyday for lunch.” – FLY participant April 2014

“I just don't like it when parents are only teaching their kids, the only food out there is junk food...it can be hard I guess, depending where you live and things like that, but I just think they should have the opportunity to learn more, like those other options for food.” – FLY participant April 2014

Notably, a theme that kept reoccurring in my data was how FLY can sometimes serve as a catalyst to encourage program participants to independently explore and question food, and to develop their food literacy on their own initiative. That is, FLY can serve as a springboard to engage the girls in certain aspects of food and to pique their interest; after they graduate from the

FLY program, they may then begin to further question where their food comes from or start to implement changes in their families' eating habits.

"It wasn't until the FLY program when I was really noticing things or I was really curious, or I really wanted to know. I think the FLY program gave me reason to look into things." – FLY participant March 2014

"From the time we ended the program to now, I guess I took the initiative to go out and look for information, and I've done my own research." – FLY participant March 2014

"I guess what ended up happening, or the girls I did get to speak to after, was a lot of them did come to their own interests but it was after the program. So it's not as facilitated and not as supported." – FLY volunteer March 2014

"Some people may seem like they haven't learned anything but maybe they don't have the confidence to assert what they've learned and use it at home, maybe they'll realize it later." – FLY volunteer May 2014

"So you don't know what's - again this is cheesy pun stuff - but you don't know what seeds you've planted. I find out later, like especially when doing report writing, like you want to hear '82% of the girls did this and this' and I often find out things years after, like a parent will tell me, 'oh yeah!!!' Like [FLY participant] didn't tell me this, but I find out from her mother at the graduation night that [she's] been taking charge of buying produce for the family, and her and her sister eat kale. So these stories that come out..." – FLY program director February 2014

While my data can ascertain, to a certain extent, what kind of food literacy is facilitated in the FLY program, the prominence of discussion around FLY serving as a catalyst indicates that to truly understand the depth and breadth of the program's impact would require research and follow-up years later. Participants, staff, and volunteers all explicitly noted that FLY introduces the girls to ideas and concepts – or even simply helps them expand their love of food. Yet signs point to how even more literacy and learning can occur after the girls exit the FLY program.

Therefore, within the scope of my research, it is impossible to know whether the same types and levels of food literacy would be most prevalent if FLY participants were to be interviewed and observed years after completing the FLY program.

The Discord Between Beliefs, Intention, and Reality

Analyzing the field notes I gathered during participant observation of FLY in conjunction with the interviews I conducted during the program revealed that the main benchmarks or measures of food literacy that the participants demonstrated were: improved cooking skills and cooking more meals from scratch; increased nutrition knowledge and the ability or desire to purchase healthy foods; the ability to influence family and friends in purchasing, cooking, or eating decisions; increased consumption of fruits and vegetables and an increase in trying new foods; the ability to reflect critically on food and the food system with an interest in change; and confidence and resilience because of food knowledge and skills. These measures of food literacy are based on those benchmarks identified through a literature review in Chapter Three. By far, the three most abundant instances of increased food literacy were found in improved cooking skills and cooking from scratch, nutrition knowledge and purchasing healthy foods, and influencing family and friends. Having reviewed and analyzed my data, it is clear that the FLY program facilitated the acquisition of food literacy in its participants. However, participants acquired a specific type of food literacy in line with the individualized, consumerist paradigm rooted in functional knowledge and technical skills, for most of the food literacy benchmarks prevalent in the girls' experiences and reflections were those identified under this paradigm.

Perhaps more importantly, this approach to food literacy that encourages the individual to live well and enjoy healthy food within the current confines of the market was evident in the type of language that FLY participants used when talking about food and food systems. The

language of individual choice was employed when participants discussed making healthy lunch *choices*, *choosing* food based on nutrition labels, making *better decisions* when shopping, and when participants emphasized the need for individuals to choose to eat healthier and put effort in to seek out produce, or the need for us to act as examples and make the right choices. This language of choice was particularly evident when the girls discussed their increased nutrition knowledge and their opinions of problems in the food system.

The results discussed in this chapter are both surprising and unsurprising, given the program's circumstances. As identified in Chapter Four, on paper the FLY program claims to define and instill food literacy from a dual paradigm approach. However, in practice and in execution, the understanding and approach to food literacy that guides programming is rooted more in encouraging healthy choices and individual behavior modification. This is not a critique of the program, for the participants gain food literacy. However, the food literacy acquired clearly aligns with one of two food literacy paradigms that the program seeks to pursue in theory. The impact of primarily gaining a food literacy that places the burden of knowledge and action on the individual's choices as a consumer is explored more in Chapter Seven, as I question whether food education programs that increase participants' food literacy can have an impact on wider food systems change.

It is also surprising that the type of food literacy gained by the participants is more heavily weighted toward the individual, consumerist, and functional approach to food literacy, particularly given the backgrounds and values of the program's staff and volunteers. Throughout my interviews and observations of the program, it became clear that their outlook on and understanding of food literacy is very systems-oriented and grounded in holistic thinking; that is, the approach to food literacy held by those leading the FLY program aligns with the second food

literacy paradigm identified in Chapter Three. This was unanimous amongst all staff and volunteers.

“Well food in itself, it's so complex and it means so many things...I'm picturing a map and food is in the middle and all these words around it that are a part of it and also overlapping, so the food literacy piece is how we teach and learn about each of those pieces.” – FLY volunteer March 2014

“Food literacy for me, it's more than just food and the functionality of food. Food literacy is understanding its context in your culture, society, how it affects your health, everything around you...it's very holistic.” – FLY volunteer January 2014

“I see food literacy...I guess I see food as a systems thing...it's like a language. The language of making food, the language of eating food, the language of talking about food...the language of food, I think that's the best way to describe it. Because language can be - like you can know how to read and write English but are you familiar with the idioms?” – FLY program coordinator February 2014

“A lot of educators and grant writers tend to talk about food literacy as a more - learning how to cook, learning how to make food - it's very individualized, and I realize that myself...I almost have this other view of it.” – FLY program coordinator February 2014

“I think why I'm kind of drawn to working with youth and why I'm good at it is that I don't go from the approach of teaching ‘oh this is healthy and this is better for you’.” – FLY program coordinator February 2014

Volunteers and staff spoke of how food and food literacy is complex, and that food literacy entails an understanding of all facets of food, or entails seeing food as a lens to understand wider social and political problems. Some acknowledged the individualized, health promotion aspect of food literacy and that they did not follow this approach. Nevertheless, it is unsurprising that the program demonstrates this discord between theory and reality, for it is simpler and easier to teach concrete food skills and individual behavior modification for health and well-being than to shape active citizens who can critically engage with contemporary food

systems issues. The type of learning that dominated the FLY program is concrete, functional skills, and is also what proliferates in much other food education, including government and media positions of making healthy choices and eating “right”. Moreover, given the lack of time and personnel faced by the program (discussed further in Chapter Six), along with the girls’ interests – FLY is “sold” to the girls as a chance to learn to cook – it becomes hard to delve into stickier food systems issues. As one FLY volunteer noted in our March 2014 conversation, “it’s hard to move from food skills to larger issues of justice and food systems issues...because of the complexity of each of the issues, it was hard to have enough time, or even to...for no other reason than time itself, to create a safe enough space to push the issues a bit further”. Importantly, the FLY internal documents and external media note a variety of advocacy projects and food systems topics that the program seeks to explore, including making videos or creating workshops to teach peers about food systems issues. Yet, these advocacy and learning projects rarely materialized, as the bulk of programming was composed of cooking in The Stop’s kitchen and was complemented with some workshops and informal discussions on food systems issues. In my conversations with one FLY volunteer, she spoke of how she had intended to lead action projects in conjunction with the FLY program coordinator, which ultimately did not occur:

“We were going to do an action project with FLY. Like something in the community that was directed by the girls, that was based on...so an action project that would have been built from whatever the curriculum was of FLY, so some of the food security issues and access issues and even growing food, or raising awareness in the community.” – FLY volunteer March 2014

“We would talk about, oh it would be really interesting to do a supermarket tour, so that we could have them look at what are the influences that are happening, the industrial and commercial influences on our food in these big supermarkets...so I planned it out and when it came time to do it, it didn't happen.” – FLY volunteer March 2014

My research thus reveals a discord between intention and reality. The intention of the FLY program is to facilitate both food literacy paradigms identified in Chapter Three, and the program establishes this intention through its internal literature and external media. This intention is also supported by the views held by staff and volunteers of what food literacy should mean and what it should encompass. Nevertheless, in reality the benchmarks of food literacy that were most prominent in the FLY girls' experiences are categorized under the individual, consumerist, and functional approach to food literacy. This is an understandable effect, given that in practice much of the program's focus was on functional food skills and activities that were simple to facilitate in a kitchen space and within a limited time frame – despite the stated intent of incorporating advocacy and community engagement projects and of increasing participant knowledge of food system, social justice, and anti-oppression concepts and issues. My research confirms that the FLY program does instill and facilitate food literacy in its participants; however, it is a specific type of food literacy that predominates, with hints of a politically and socially aware and actively engaged approach imbued only at a superficial level. In a sense, FLY is teaching consumer politics based on individual behavior modification with some exposure to the philosophical underpinnings of The Stop and of the broader, more activist food literacy paradigm that seeks to disrupt problematic food systems practices and facilitate participation in the food system rather than navigating it for one's own benefit.

Chapter Six: Building a Stronger Food Education Program for Food Literacy

For all the programming, meal preparation, and activities that FLY offers, the program is not without struggle. As discussed in Chapter Two, the 2013-2014 FLY program faced an unprecedented lack of regular participant attendance, coupled with poor participant retention. It

is difficult to discern the cause of these problems – and it is not the intent of this paper to do so – for it was out of the realm of possibility to interview girls who ceased to attend the program. In all years of FLY’s existence, there has always been some reduction in attendance midway through the program, but not to the extent that occurred in the most recent year. Near the end of February, I remarked in my field notes, “in our discussions today and last week we have really brainstormed [why we have had such low attendance], and have talked about the weather, about some of the girls having jobs, about the program being too long and instead perhaps needing to be divided by semester, and about how teenage girls tend to travel in packs with their friends – and this often means that it’s the ‘lone wolf’ that will come to the FLY program” (field notes February 26, 2014). As we began to notice a continued reduction in program participation, I asked staff and volunteers their thoughts on the lack of attendance and poor retention to gain some insight:

“I think there were issues with weather...a little bit. Issues with exams.” – FLY volunteer March 2014

“Some of them are dealing with stuff at home that we have no knowledge of or control over, and some are dealing with stuff between each other that you don’t even know about.” – FLY volunteer March 2014

“Some kids can’t go to after school programs because they need a job to pay and buy their basic needs and to help support their families so I think you would have to find - maybe it would mean they could get paid some money, maybe it would mean having caregivers to take care of the younger siblings.” – FLY program coordinator February 2014

“Many programs saw a dip in attendance this winter – we think that the unusually cold and snowy winter played a role this year. [Also] some key faculty ‘champions’ changed schools or positions, resulting in lost links with [FLY] students.” - The Stop Green Barn manager June 2014

The general consensus amongst staff and volunteers – based purely on observations, previous experience, and commentary from the girls – was that lack of attendance this year was a combination of terrible winter weather that made it difficult for teenagers to transport themselves to The Stop, some participants having to choose paid work that conflicted with the FLY program schedule, other participants needing to care for younger or older family members, poor connections and a lack of institutionalization between the FLY program and participating schools, and girls in the program generally being younger this year, meaning they prefer to travel with groups of friends who may not all want to attend the program. It is essential to recognize this year’s lack of attendance, not only because it impacted the amount of data I was able to collect, but also because with lower attendance came the revelation of some barriers to creating effective food programming for food literacy. As one volunteer noted, “the attendance was a bit unstable. Which then affected the curriculum because there is a continuity, for example cooking, you can't just go from chopping to making some complicated thing, so there's that piece” (FLY volunteer March 2014). When attendance is low and participants do not regularly attend on a weekly basis, it becomes more challenging to build on skills and concepts taught in previous weeks and to delve into more complex food systems issues. Moreover, the FLY program coordinator mused that “it [the FLY program] was designed in such a way for people to have a very comprehensive viewpoint of food and I think it's almost like in a vacuum it would work really well but I think the reality is that the participants are going to be different from year to year” (February 2014 interview). That is, in theory the program is designed to be thorough, comprehensive, and innovative, but in practice, results can be different, in part due to the variance in participants from year to year and their interests and attendance.

It is to be expected that barriers will exist when constructing and implementing a community-based food education and food literacy program that meets all its original goals and intentions. As specified in FLY's internal logic model and work plan, the outcomes it seeks to accomplish are a challenging task for any community center, even one as well known and long-standing as The Stop. Through my participation in the program as a volunteer and through my observations and interviews, I uncovered some of the most pressing barriers to melding the program's intentions with reality. The barriers identified below are those which surfaced most frequently during the course of my analysis of field notes and interviews.

Barriers to Programming: Lack of Resources

I provide the following analysis with the assumption that FLY desires to not only increase the program's attendance and retention, but also that FLY seeks to meet its goal of facilitating both of the previously identified food literacy paradigms in its participants. Having spent six months gathering data and engaging in conversations with participants and staff, my research revealed the lack of program resources, which creates a barrier to building a more effective food education program. This lack of resources impacts both the girls' ability to access and participate in the program, and the staff's ability to execute effective programming that fulfills FLY's goals and desired outcomes around food literacy. While the FLY program is free to participants, The Stop is unable to incentivize the program due to funding constraints. Participants receive a full meal that they cook during each session, and can often bring leftovers home; however, it is their responsibility to secure transportation to and from the program, and to overcome personal barriers like needing to work or care for family members. Many comments were made over the course of my interviews that FLY should recognize its audience. That is, the program targets lower income and marginalized youth who often cannot afford public transit tokens to attend

The Stop's programming, or who must choose to work instead of attend after-school programs. In my field notes, I observed that the FLY program coordinator questioned what might be possible in terms of incentivizing the FLY program, for "many community programs for youth provide an honorarium, bus tokens – giving the youth something more tangible than cooking skills and a free meal" (field notes March 26, 2014). Volunteers, in particular, commented on the need to recognize the program's audience and act accordingly to make the program equally accessible to all socioeconomic groups.

"What I would change from a very material perspective, is because of the target audience, I would have if at all possible, tokens. Like have a way to get there for free, so they're not scrambling to think, oh shoot, you know I'm supposed to go to FLY tonight but I only have three dollars and I need to get home after...for them, that can be a huge deal, so just having that extra support and acknowledging who the community is and making it easier to get there." – FLY volunteer March 2014

"Another thing, instead of a direct stipend because that could be hard, but maybe a guarantee that you'll take food home because sometimes depending on how it's cooked, or whatever, you could say every night you're going to have a dinner or a meal and you're going to get some to take home for lunch so that they know that's worth something to them." – FLY volunteer March 2014

There is not a significant body of research that explores critical aspects of food education and food literacy programming to improve effectiveness and attendance, though some papers do emphasize the need for accessible services and for prioritizing transportation to programs. Chessen et al. noted in their cooking and food education program evaluation that "lessons learned...suggested the importance of eliminating transportation issues by partnering with existing after-school programs" (977), and Desjardins et al. observed through their interviews with marginalized youth that "affordable public transportation is key for accessibility of services" (viii). Moreover, Cullerton, Vidgen, and Gallegos found that successful recruitment and

retention strategies for food education programming included “having programs at flexible times, providing incentives for attending, and providing child-care” (19). The available literature indicates that providing a means of transportation to the FLY program, along with care for siblings and other incentives, could positively impact attendance and retention.

As one FLY volunteer commented in our interview, the program “is supposed to be for low socioeconomic, marginalized, possibly immigrant girls, or second or third generation, in that community” (FLY volunteer March 2014). Moreover, The Stop’s Green Barn manager noted both the participants’ backgrounds and need for program accessibility: “many of the girls who have chosen to participate in this program come from racialized and/or recently immigrated families and/or groups that face substantial barriers in our city. It has been essential that they feel safe and understood, that the program time and location are accessible” (The Stop manager June 2014). However, because of constrained resources, The Stop is unable to tangibly acknowledge the program’s audience and their specific needs. The FLY program draws primarily from the Davenport neighborhood in Toronto, where the average household income is only about 80% of the Toronto average, and households tend to be younger, larger, and significantly less educated compared to the rest of Toronto (City of Toronto Ward Profiles 2014). By not providing resources to the girls that make the program accessible – whether it be public transportation tokens, care for their younger siblings, or offering an honorarium so participants do not have to prioritize paid work over participating in the program – there exists an issue rooted in food justice, where access to food education programs and the subsequent acquisition of food literacy through community programming is limited based on one’s socioeconomic status. In interviews, the FLY program coordinator emphasizes FLY’s consciousness of social justice: “a lot of the pieces we do around connecting poverty and hunger, it’s a big part of our program, like we really

work on encompassing the anti-oppression, anti-racism approach to things. As much as we can. Like decolonizing some of our activities and stuff like that, and putting that piece in, making that a big part of our focal point” (FLY program coordinator February 2014). Nevertheless, in practice the FLY program is unable to fully serve the participants’ background; this is not necessarily a function of the program’s desire, but rather a limitation based purely on available resources, which subsequently impacts attendance.

In addition to a lack of physical and financial resources to create a more accessible program based on the participants’ background, a lack of human resources also exists, where it becomes difficult to fully develop the FLY program as intended. The FLY program coordinator is not only the sole person in charge of developing, directing, and supporting the program, but she is also tasked with running several other education programs at The Stop. As a volunteer noted in our March 2014 interview, “one of the biggest challenges the program has is resources and not necessarily like food as a resource, but human resources, time resources” (FLY volunteer March 2014). However, it was the conversations I had with the FLY program coordinator where this issue was primarily revealed.

“Sometimes it feels like I'm not able to put the time and energy into the outreach that I would want to - impactful, effective outreach.”
(FLY program coordinator February 2014)

“I think a lot of program coordinators, you're spending so much time doing the administrative side, and trying to coordinate things and you don't necessarily feel like you're doing the best job say, training the volunteers, being able to get the recipes and the food.” (FLY program coordinator May 2014)

“I think that's a big struggle also, because we do a lot of programming, the other coordinators, that gets in the way or can be obstructive to the program.” (FLY program coordinator February 2014)

Being in charge of all youth education programs at The Stop, the FLY program coordinator is left without enough time to fully develop the FLY program as its work plan and internal logic model intend. The FLY program coordinator spoke in our interviews and informal conversations of how the combination of developing curriculum, organizing the week's programming, spearheading all administrative tasks, liaising with school principals and guidance counselors, pursuing recruitment strategies, and maintaining networking relationships – in addition to running several other education programs – is a substantial, if not unrealistic, amount of work for one individual, particularly if the desire is to dedicate the time and attention needed to fully realize FLY's intended outcomes, including fostering food literacy beyond functional skills and the individual model of healthy choices that Chapter Five demonstrates are currently dominant.

Barriers to Programming: Lack of Time

From its outset, the FLY program was designed as a two-hour, weekly session that combines cooking activities with other food systems workshops. During the course of my research, a significant number of references were made to a lack of time in the program to fully explore food systems concepts through a critical lens. Volunteers and staff suggested that it is this lack of time that drives the program toward more superficial engagement with food systems issues while more thoroughly developing an individualized, consumer-driven, and functional food literacy. As volunteers and staff surmised, due to time constraints it becomes easier to pursue the familiar: in this case, individual behavior modification and functional food skills.

*“Trying to touch on the complexities of food justice in that two hours a week, it's hard - super hard - but not impossible.” – FLY volunteer
March 2014*

“It’s hard [to pursue larger analysis] because they are such short packages of programming.” – FLY volunteer March 2014

“I think that the problem is that because of the complexity of each of the issues, it was hard to have enough time, or even to...for no other reason than time itself, to create a safe enough space to push the issues a bit further.” – FLY volunteer March 2014

“One thing that I always struggled with is that there have always been all these objectives, there’s so many of them and it’s really hard to do all of it.” – FLY program coordinator February 2014

“It sometimes felt like because you’re trying to cover so much, things would be surface level. And in some ways it’s like, you want to cover all these issues around labor and these bigger systematic issues.” – FLY program coordinator May 2014

Volunteers and the program coordinator referenced how difficult it can be to move from simpler food skills concepts to more complex food systems issues when participants are not present every week, or when only two hours are available to both cook a meal and delve into an exploration and analysis of systemic food issues. The volunteers and staff also remarked that a larger analysis that fosters the type of critical reflection and broader engagement present in the more politically and socially aware food literacy paradigm is simply not possible when the program attempts to integrate so much content, and when the focus is multifold. That is, FLY attempts to be a cooking program, a leadership program, and a sustainable food systems education program, all within two hours weekly. Notably, one of the FLY participants also commented that she would like the program duration to increase, because sessions often felt rushed:

*“I would improve...maybe it was the time, from 4 to 6. **Sometimes it felt rushed...**I mean, a lot of the girls were willing to stay longer.” – FLY participant March 2014*

Lack of programming time exists in concert with FLY's limited resources, for when human and physical resources are already in short supply, increasing the length of programming becomes particularly challenging. As noted by staff and volunteers, the lack of time available for programming does limit the type of food literacy gained by participants. To move towards the broader, more engaged food literacy paradigm identified in Chapter Three, and referenced in the program's goals and intentions, requires more time and space to develop the complexities inherent in food systems issues and to allow participants the time to fully delve into systematic issues beyond a surface level exposure.

Recommendation: The Importance of Space and Place in Building Food Literacy

If the goal is to consider how to build a stronger food education program that better facilitates both food literacy paradigms, it is also necessary to address potential changes to the FLY program. Much of the informal discussion that occurred between FLY staff and volunteers in the latter half of the program focused on what could be altered for forthcoming years to increase attendance and accessibility to its participants. My field notes and interviews identify three possible changes that were frequently discussed by staff and volunteers: moving the program's location from The Stop's kitchen to kitchens within the girls' schools; reducing the program length; and offering a co-ed program rather than single sex. However, as I reviewed my data and coded interviews and field notes based on emergent themes, I also found significant commentary opposing the implementation of the aforementioned program changes because of their potential negative impact on participants' ability to increase their food literacy. While volunteers and staff proposed certain changes in order to increase attendance, when asked what aspects of the program were most important to facilitating participants' food literacy, their answers often contradicted their attendance-driven propositions. Based on my analysis and the

content of my interviews and research, this paper recommends against moving forward with any of the three changes identified if the goal is to facilitate both food literacy paradigms summarized in Chapter Three and referenced in FLY's internal literature.

During the latter months of the FLY program, debriefing sessions often incorporated questions of whether shifting FLY's location to kitchens in participating schools would increase program attendance by removing the barrier of transportation. Both a March 26, 2014 post-session debrief and a May 14, 2014 interview and program debrief with a FLY volunteer and the FLY program coordinator dedicated a large portion of time to debating the merits of this proposition. It was suggested that moving FLY to in-school kitchens would remove the barrier of accessibility due to weather and transportation (field notes March 26, 2014; May 14, 2014). In light of these debates, it is essential to note that the most prominent trend that emerged in my field notes and interviews when discussing possible program improvements or how to increase participants' food literacy was the value of space and place in contributing to food literacy, and the specific value of conducting the program within the physical context of a community food center.

"There's also just like the fact of being in that space and talking about what happens in the space that you become more aware." – FLY volunteer March 2014

"The very fact of being in the space where right down the hall is a drop in center, what does it mean to be there? And the Tuesday market, the Good Food Market, and the moms and babies program, like how...the culture of the space just creates, we don't even know the kind of learning they do just by looking at a poster or looking in the drop in or having been in there at least when we did it, that they saw all these people and thought oh my gosh these people are here because they don't have food...or gone in the food bank...that to me, I think is really important to have, the food literacy is happening." – FLY volunteer March 2014

“I definitely would say in the greenhouse they were always more engaged. It's just such a special place. Most people don't get to go in a greenhouse, right? And planting seeds and doing that hands on dirty work.” – FLY volunteer March 2014

“I think it does [increase food literacy in FLY participants], one because of where it's set. It's at the food bank, and even though it's not directly at - we mention oh it's for the food bank. And [FLY program coordinator] talks about what happens during the week and how people come in, and through osmosis, I guess, it matters. Some of the kids had never been in a situation like that, or maybe they have and they've been embarrassed about it, or who knows, right? And being in there in a positive setting and understanding, okay this is how food relates in a lot of different ways.” – FLY volunteer January 2014

“So it was amazing to see that we're able to have access to a commercial kitchen and to be in that space. So it makes them feel special.” – FLY program coordinator February 2014

There is a large selection of academic literature that is centered on place-based pedagogy and the value of place in learning (e.g. Gruenewald 2003, Green 2007, Delind 2006). Discussions around food and food education also tie to questions of place, and the role of location and context in increasing awareness and literacy. Kloppenburg et al. (1996) ask, “how can [people] understand the implications of their own participation in the global food system when those processes are located elsewhere and so are obscured from them? How can they act responsibly and effectively for change if they do not understand how the food system works and their own role within it?” (34). The space in which food education is conducted, as stated by FLY volunteers and staff, is critical for dodging the “usual” modes of teaching that may dominate in a school cafeteria kitchen, and the physical space of The Stop’s community food center offers one method of contextualizing food systems issues and of fostering a broader, politically and socially aware food literacy. Conducting the FLY program in a location that is surrounded by a food bank, drop-in meal programs, cultural cooking programs, gardens, and greenhouses helps to avoid the

“disconnection from the larger world” (Weston 35) that can occur when learning is separated from place. Being at The Stop also offers FLY participants the ability to witness, through direct lived experience, the web of systemic issues in the contemporary food landscape that The Stop seeks to address. As volunteers asserted in our conversations, this place-based learning within the context of a community food operation can “plant the seeds” of engagement and awareness related to a broader, more active food literacy. If the FLY program was to transition into school kitchens, FLY staff and volunteers may lose the opportunity to capitalize on increasing participants’ politically and social aware, engaged and systems-based food literacy through place-based and contextualized learning.

Recommendation: The Value of Program Length to Support Food Literacy

Participant attendance and program retention was worse than normal in the FLY program this year, which translated to fewer girls benefitting from the program. During the course of my participant observation, the FLY program coordinator repeatedly demonstrated an interest in reducing the FLY program to a semester-based model, or in transitioning to a drop-in structure, theorizing that participant interest wanes after two to three months (field notes March 26, 2014). While reducing the FLY program to a multi-week model or to a drop-in model instead of a year-long program may increase attendance, it could negatively impact the girls’ ability to increase their food literacy – particularly that which is contextualized and systems-based. Available studies on food literacy and food education have concluded that the most effective programs are longer in length and require weekly participation. Brooks and Begley (2013) examined school and community food education and food literacy programs and concluded that an effective intervention will engage participants weekly and will be at least ten to twenty weeks in duration (10). Moreover, Desjardins et al. (2013) found when interviewing their research

participants that “several respondents mentioned that community [food education] classes should be widespread...and not just short term (‘a few weeks is not enough’)” (40), and Thonney and Bisogni (2006) analyzed their food education and cooking program, finding that at least six sessions increases participants’ opportunity to master skills and concepts being taught (321). FLY volunteers shared the opinions of researchers, vocalizing and rationalizing their support for a FLY program of longer duration.

“To change it from a shorter program or a drop in program, you’ll lose that community that’s built, which makes it safer to push personal boundaries a bit more. So I personally wouldn’t want to change it in terms of the delivery.” – FLY volunteer March 2014

“One of the things I feel, and witnessed is that food, part of the strength of food...is the community that it builds.” – FLY volunteer March 2014

“I think if the intention was to do six weeks, six weeks, six weeks...how do you make it inclusive for the girls who’s come, this is now her third session, versus the first session? So it has to be really well programmed. And then that comes back to human resources...the more time you have for planning, the better. So if it was a full time job for one person to plan, great, but I know [the FLY program coordinator] has a lot of other programming and whatever else. So it’s hard.” – FLY volunteer March 2014

FLY volunteers emphasized that a longer program over the course of the full school year builds a sense of community amongst the girls, and it is the community aspect that helps to create a space where participants can delve into larger food systems issues and push the boundaries of engaging with and critically analyzing the food system. While Chapter Five illustrates that this critical analysis and active engagement does not occur to the degree that may be desired, reducing the program length would make it even more challenging to achieve this outcome. Commentary from FLY volunteers also indicated observations that shorter programs or drop-in sessions would require more human resources to effectively plan and execute a revised

model that maintains similar educational qualities to a year-long program. Given that the FLY program already operates with limited human resources, introducing a more demanding program model may be undesirable. Additionally, it was the FLY program coordinator who originally introduced the idea of reducing program length; yet, she also noted later on that the tradeoff for doing so is losing the investment, growth arc, and level of comfort developed by the girls that results from enrolling and participating in the program for a full year (field notes April 26, 2014). Therefore, transitioning to a shorter program duration may increase attendance, but it would further limit the possibilities for exploring a layered analysis of contemporary food systems issues.

Recommendation: Maintaining the “Girl” Community to Delve into Food Issues

One of the most obvious ways to expand the pool of potential FLY participants to increase attendance and enrollment is to transition from a single sex program to a co-ed program. Such a suggestion was heavily debated during my months of participant observation, particularly as FLY participants noted the number of male friends who were interested in the program. An interview and end of program debrief with the FLY program coordinator and a FLY volunteer elaborated the question of whether the program should move towards co-ed, with the advantages being a wider pool of participants and including the number of male youth who had vocalized interest in participating (field notes, interview notes May 14, 2014). In opposition to this suggestion is the prevalence of commentary indicating the role of community in the FLY program that was bolstered by the all female presence. Throughout my time with FLY, participants noted the “sisterhood” at FLY, alluding to the community built by being an all girls’ program. Additionally, my interviews yielded observations that this community fostered in the FLY program made it possible to not only to explore issues of food literacy and maintain the

girls' engagement over the past years, but also that this sense of community is one of the program's most appealing aspects to the girls. When asked what they liked most about the FLY program, participants often made reference to the all girls atmosphere – the “sisterhood” – and the chemistry it fostered.

“I liked that it was all girls. I think that it made it a comfortable atmosphere.” – FLY participant March 2014

“I mean, I wouldn't mind [if it was guys and girls]. But for some of the shy girls, for sure. I work well in both cases, I would have been okay with that but I know for some girls, I know even coming out to an all girls program is very intimidating, so I like that it was all girls because there were a lot of shy girls in the program and it helped them feel more comfortable and open up more and try more things and laugh.” – FLY participant March 2014

“If we have good chemistry, of course I'm going to come back [every week]...no one had a bad attitude. It was a good energy, I thought.” – FLY participant March 2014

The importance of the all girls atmosphere did not go unnoticed by FLY volunteers, one of whom commented that “it felt to me like it was this place where girls could be girls, there would be no boys, even though sometimes they said we should have boys” (FLY volunteer March 2014). This same volunteer also noted, “I know how my body feels different and my mind feels different when there's a man in the room. And that's not necessarily true for every girl but girls' programs exist for certain reasons, right? [It's] this essentially safe space for them” (FLY volunteer March 2014). My interview conversations revealed common themes of the “girl power” mantra and the safe space created by a single sex environment that draws participants together. In having this community, FLY volunteers suggested that it becomes more possible to broach difficult and complex food systems topics in a way that makes girls feel comfortable (interview, March 2014). Additionally, if this sense of community is one of FLY's biggest draws and one of

the goals is to increase attendance to facilitate a continuity of programming, then it bears consideration what the possible negative impact would be if the program shifted to co-ed status. With more than 1,000 female students enrolled at the three schools from which the FLY program draws (Oakwood Collegiate Institute 2014; Loretto College 2014; Bishop Marrocco/Thomas Merton 2014), it is likely unnecessary to expand to a co-educational program that enrolls a maximum of fifteen participants each year. Rather, stronger recruitment and enrollment strategies to engage the large population of potential participants may be more beneficial, particularly given that current and previous participants emphasize the program's all girls atmosphere as one of its more appealing aspects.

Conclusions and Considerations

One of the most notable challenges FLY faced this year was poor attendance and participant retention over the course of the program. Looking forward to the 2014-2015 school year, program staff proposed potential changes or improvements to address issues of attendance, enrollment, and retention. However, my observations of and conversations with participants, staff, and volunteers suggest that implementing any of these three changes – be it transitioning to school-based locations, reducing program length, or expanding to include male youth – could negatively impact participants' ability to become more food literate, and would particularly restrict the program's capacity to increase facilitation of a politically and socially aware, actively engaged food literacy that seeks to disrupt problematic food systems practices. In essence, a review of my data demonstrates that staff and volunteers presented contradictory statements. The suggestions offered to increase attendance were opposed by respondents' views on the importance of place and community or the length of programming time when they vocalized critical aspects of FLY to bolster food literacy. Therefore, tactics to increase attendance do not

necessarily support the creation of an environment that best facilitates food literacy. It bears consideration whether increasing participant attendance is more valuable at the potential expense of building a comprehensive food literacy, or whether alternative changes could be implemented that would simultaneously increase attendance and foster the program's capacity to facilitate both food literacy paradigms.

The barriers to programming that were most frequently present in the analysis of my data (lack of resources and time) impact both participant attendance and FLY's ability to expand programming to move beyond a dominance of functional food skills and individual, consumer-driven food literacy. It may be difficult to remove these barriers; however, they are important to note, for addressing them could improve attendance by way of eliminating socioeconomic driven hurdles to participation. Reducing these barriers to programming could also maximize the staff and volunteers' skills and knowledge by allowing them the resources to reframe the girls' experiences in the program outside of the individual, consumerist and functional approach to food literacy, moving beyond cooking skills and reading nutrition labels to incorporating more community engagement and advocacy projects and food systems awareness.

Chapter Seven: Does Food Literacy Mean Change?

As food education programs have expanded in number, there have been assertions and assumptions of a link between food education, food literacy, and wider food systems change. A large part of food education programs' popularity can be attributed to their presumed impact on the industrial food system at large through participant reskilling and reclamation of the food system. The assumption remains that food education will create a food literate population, and with food literacy will come impactful change (see Jaffe and Gertler 2006, Goodman and DuPuis 2002, Howard and Brichta 2013, for examples, and pages 9 – 10 of this paper for an expanded

discussion). Nevertheless, the transition from food education to food literacy to food systems change is not as straightforward and linear as may be assumed, for these effects and outcomes have yet to be truly proven in the literature. Chapters Four and Five of this paper established that a food education program like FLY can impart food literacy in its participants, though the food literacy gained predominantly follows a specific paradigm. A food literacy of neoliberal consciousness is facilitated through the FLY program, where individual action and choices within the current market structure were impacted through increased cooking skills, nutrition knowledge, influencing friends and family, trying new foods including fruits and vegetables, and an increased confidence and resilience because of food knowledge and skills. In comparison, a food literacy of critical consciousness – based in critical analysis of the contemporary food system, broader engagement, and a desire for action and change – was unable to fully flourish in the FLY program, despite the goals and intended outcomes of the program as vocalized in FLY's internal literature. In the progression between food education, food literacy, and change, this paper establishes that a food education program like FLY can facilitate food literacy to a certain extent. Given this conclusion and connection between food education and food literacy, one of the next logical questions is whether the food literacy gained can contribute to the promotion of some type of wider food systems change. As mentioned, this is a question that has yet to be answered through evidence-based research, and the pursuit of a conclusive answer does not fall within the research scope of this paper. However, given the current body of literature available and the analysis conducted for this research, it is possible to propose a logical hypothesis.

Transformative Learning in Food Literacy for Change

There is no real basis of research that links the acquisition of food literacy to wider food systems change. To question whether food literacy gained in a program like FLY can facilitate

change, it thus becomes necessary to move into a broader selection of literature. For example, asking what type of *learning* can instigate change leads to a significant body of literature on transformative learning and its role in fostering wider, systems-based change, whether it be for social justice, sustainability, or environmental stewardship. Originally put forth by Jack Mezirow as a process of adult learning, transformative learning is the process of effecting change in a frame of reference (Mezirow 1997, 1) and occurs through critical reflection, engaging in discourse, and taking action (Mezirow 2009, 94). In essence, transformative learning is a process that represents a change of consciousness and impacts “how the learner perceives and makes sense of the world” (Kerton and Sinclair 401). It is a popular enough concept in sustainability education and environmental stewardship that a modified theory called transformative sustainability learning has been introduced, and is defined as “learning that facilitates personal experience for participants resulting in profound changes in knowledge, skills and attitudes related to enhancing ecological, social and economic justice” (Sipos, Battisti, and Grimm 74). The process of transformative learning is not comprised of simply gathering functional skills or knowledge for informational purposes and individual change, but is rather a learning grounded in critical reflection and discourse that shifts one’s frame of reference to effect change. As Kerton and Sinclair noted in their study of the role of transformative learning in the purchase of and engagement with local and organic food, the transformation of dominant ideologies in the food system “has the potential to influence...decision making to be more environmentally responsible” and “has the potential to foster sustainability” (401 – 402). By facilitating systems thinking, transformative learning can also facilitate students’ development as sustainability change agents (Frisk and Larson 11).

Transformative learning is advanced through a combination of instrumental learning and communicative learning. While instrumental learning includes the acquisition of skills or information along with problem-solving, communicative learning is rooted more in social mobilization and engaging in discourse (Mezirow 1997, 6). Transformative sustainability learning is similar in execution, and is grounded in systems thinking, long-term foresightedness and reasoning, engagement and collaboration, and action orientation (Frisk and Larson 7). Those who have implemented tactics to foster transformative learning in environmental sustainability or food systems education express that it is more liberatory than general learning and facilitates social responsibility and critical reflection as a guide to action (Kerton and Sinclair 402). In their specific study of transformative learning in those who engage with local organic food pathways, Kerton and Sinclair concluded that “transformative learning outcomes that foster sustainability can result when citizens are directly involved in activities, programs, and policy deliberations” and that change driven by transformative learning can have a “ripple effect” through initiation of activities that raise critical awareness of environmental and food issues (Kerton and Sinclair 411, 412).

In examining the theory of transformative learning and its execution in practice, it is a combination of critical awareness and reflection, discourse, and broader social engagement. Transformative learning asserts that it is this combination of outcomes that fosters change. Strikingly, these benchmarks of transformative learning (critical awareness and reflection, discourse, and broader social engagement) are some of the same benchmarks of the more politically and socially aware, systems-based and critically conscious food literacy paradigm identified in Chapter Three. These food literacy benchmarks include the ability to reflect critically on food and the food system, ability to analyze discourses around the socio-political

impacts of the food system, and knowledge and awareness of the multiple dimensions of food – understood as broader engagement (see Table 3 on page 53). What we can glean from the similarities demonstrated in this food literacy paradigm and the benchmarks of transformative learning is that the broader, more politically and socially aware food literacy paradigm identified in this paper is indicative of a process of transformative learning, something to which Sumner (2012) alludes as well in her conference paper on food literacy and education.

If a food education program like FLY strives to teach food literacy with an end goal of fostering some type of change beyond influencing individual choice, or if food education programs are created with the goal of instilling food literacy for wider change, then the program must instill not only the dominant paradigm of individual, consumer-driven functional food literacy, but also the broader, more engaged and aware food literacy. If a food education participant acquires the type of food literacy present in the paradigm of critical consciousness and broader engagement, they will have, to some extent, undergone a process of transformative learning. With this learning comes the possibility of wider food systems change, for “changes in beliefs and attitudes contribute to the participation of individuals in social change...individuals will engage in social action and work for the collective good if they develop a sense of critical consciousness” (Allen in Galt et al. 2013, 15).

This paper establishes that the FLY program primarily fosters food literacy that demonstrates a neoliberal consciousness and that falls under the individualized, functional food literacy paradigm. Benchmarks of food literacy (and transformative learning) such as critical reflection and analysis, broader social engagement, and discourse and action were not identified in FLY participants’ learning outcomes, with the exception of some level of ability to critically reflect on food systems issues. Therefore, as it stands the program does not appear to facilitate

the type of food literacy that may contribute to some level of wider change in the food system, for it is unsuccessful in facilitating both food literacy paradigms – which we can hypothesize are both necessary if some wider change is sought. Nick Saul, former executive director of The Stop, asserts as much in his remarks on the limitations of the consumer-based model for change, noting that “the vote-with-your-fork approach posits that changing what you eat or the kind of producer you buy it from will lead to societal change. It’s a compelling notion that makes people feel they are in charge...of course, it’s not that easy...we need to forge a larger food movement that includes consumer power but also goes far beyond it to assert our rights and responsibilities as citizens. Without this sort of big-picture political and social framework, voting with your fork means the change can stop at the checkout counter” (156-157).

Re-Evaluating the FLY Program

With the analysis and conclusions drawn in this paper, an essential question is whether it is beneficial to continue pursuing the current FLY program model considering it imparts only one type of food literacy in its participants. Specifically, it is a food literacy paradigm which on its own can be assumed to not instill broader food systems change, and more importantly which fails to meet all the goals and outcomes of the FLY program. Nevertheless, the FLY program is not a failure, for it seeks in part to support the development of healthy and food literate young women, and it does so to a certain extent. My research establishes that participants gain food literacy – an individual, functional food literacy grounded in healthy choices and individual change within the current market norms of the industrial food system. While food literacy is gained, this is accompanied by the ability to reach only a small number of participants (the program limits enrollment to a maximum of twelve to fifteen girls) on a significant human and physical resource investment (including a program coordinator and up to three volunteers), and

a recent struggle to fill all program spots and maintain attendance. The outcomes noted in this year's FLY program, coupled with program's barriers and constraints, thus suggest that the FLY program is not a particularly scalable model, particularly since the program's outcomes and challenges exist within a fairly well-resourced organization compared to others involved in food efforts.

Over the course of the 2013-2014 FLY year, staff and volunteers brainstormed possible changes to increase participant attendance and retention to enhance the program and facilitate a continuity of programming. Despite the numerous conversations that occurred, it may be constructive to re-evaluate the program model as a whole, given its limitations in predominantly facilitating food literacy within a singular paradigm and given attendance, retention, and resource issues. Maintaining the FLY program in a model consistent with that currently employed would still require significant changes if the goal of facilitating the dual food literacy paradigms is to be met. Incorporating more advocacy and awareness projects that encourage action and discourse would not only help to facilitate the broader, more politically and socially aware and engaged food literacy paradigm, but would also contribute to transformative learning. Mezirow asserts that to facilitate transformative learning, "learners need practice in recognizing frames of reference and using their imaginations to redefine problems from a different perspective" (1997, 10), and that "action and advocacy projects, participation in social action, are key to promoting this type of learning because they encourage both critical reflection and discourse" (1997, 10). In terms of specific examples, Galt et al. (2013) speak to the role of journaling and critical reflective writing as a means to transformative learning, and Lydon (2012) also details the role of community mapping in supporting transformative learning. Notably, during the course of my interviews one FLY volunteer spoke of activities such as journaling and

community mapping, which were intended to be implemented in the FLY program but failed to be executed:

“We were going to do an action project with FLY. Like something in the community that was directed by the girls, that was based on... some of the food security issues and access issues and even growing food, or raising awareness in the community...which I guess for me seeing The Stop as a community advocacy group, I didn't see as impossible” – FLY volunteer March 2014

“The idea of this journaling at the end of the session, sometimes it just seemed to not happen and I don't know why. Just ran out of time, or wasn't enacted...there's sort of theory around it, but when you have time to reflect on what you've learned and then again around the complexity of food, like "oh my gosh I never looked at it this way" like how when you have these epiphanies and you have time to reflect then it sticks deeper, right?” – FLY volunteer March 2014

“We were going to walk around and map where we can buy food in that community. So I planned that too and that didn't happen. Like, oh not enough girls showed up this week so it doesn't make sense to do this complicated activity with only a few girls. Or, oh we ran out of time because we also wanted to fit in this other thing...it's stuff that comes up.” – FLY volunteer March 2014

The program was unsuccessful in moving intention to reality with these projects and other community and advocacy-based food systems activities during the course of my research (and in fact during the whole course of my volunteer efforts from October 2012 to June 2014). However, interest was nevertheless expressed in integrating them, both in FLY's internal literature as intended activities and through some planning groundwork laid on the part of the program coordinator and volunteers.

In order to accomplish FLY's objectives and to increase the program's effectiveness, consideration is needed for what changes could be implemented that may overcome attendance challenges while simultaneously instilling the dual food literacy paradigms sought by the

program. A brief overview of preliminary thoughts follow, which are grounded in the research and experiences detailed in this paper, but for which further exploration was not in the scope of this project. Given the problematic participant attrition and attendance encountered by the program, it may be worthwhile to more heavily invest in outreach and recruitment at the beginning of each program year. This would be more easily facilitated if FLY were to construct and maintain stronger bureaucratic and administrative ties with leaders and teachers at participating schools, who could serve as champions for the program while recommending girls for participation. Enrolling more girls would not only improve attendance, but by extension could help facilitate a program environment more conducive to community-based projects and learning activities that foster a critical awareness of the food system. Moreover, it would be highly advantageous to over-enroll the program; historically, the FLY program coordinator has limited initial enrollment to the maximum program capacity, yet simply accepting 40 – 50% more girls at the outset could ensure that once some girls inevitably departed the program, the number of participants would remain near capacity. Assuming the lack of physical and human resources identified in Chapter Six cannot be addressed, the lack of time could be partially remedied with minimal additional resources by extending program sessions from two hours to three. In doing so, sessions would not be as brief, which could allow the girls to engage at a more in-depth level with action projects and learning activities, while still ensuring sufficient time for cooking. It may also be advisable to implement more rigidity in curriculum structure, such that activities that support transformative learning and critical engagement with food systems issues are not set aside in favor of functional cooking skills-based activities. This could foster a more balanced curriculum that incorporates advocacy and community engagement activities identified in the FLY internal logic model and work plan, including zines, videos, and peer-led food systems

awareness presentations. These preliminary possibilities, along with the aforementioned inclusion of critical reflection and action and advocacy projects that support the transformative learning process, are prospects that could be explored in future work and research efforts.

Beyond changes like these, and those also outlined in Chapter Six, this paper draws out larger questions about the overall program model and its possibilities. Only two weeks prior to this paper's submission, the FLY program coordinator gave voice to some of these uncertainties during the course of an email exchange on youth-based food education efforts at The Stop, and expressed hesitation as to whether The Stop is equipped to offer a range of youth and children's community food education given its current organizational capacity. Already, programs at The Stop are plentiful, and include a half dozen community cooking programs, children's and after school programs, community advocacy support, an almost daily drop in meal program, a food bank, family and pre-natal nutrition support, sustainable food systems education programming for neighborhood schools, and a range of community gardening and urban agriculture programs. Considering this paper's conclusions on the outcomes and impacts of the FLY program, the current model may not be the best fit for youth food education and food literacy efforts in a multi-pronged community food organization.

Final Remarks

This paper evaluates conversations around food literacy that exist in academic and organizational literature and establishes two primary food literacy paradigms and associated benchmark measures of food literacy. One of the primary goals of this paper was to evaluate whether, and to what extent, food education programs like FLY can instill food literacy in their participants, in response to the consumer deskilling that has occurred within the modern industrial food system. With the aforementioned food literacy definitions and benchmarks

serving as a foundation, my case-study research establishes that FLY primarily facilitates an individualized, consumer-driven, functional food literacy that will not necessarily lead to wider change, for it focuses on individual behavior modification within the current food system. This outcome occurs despite the program's expressed interest in, and intention of, facilitating both food literacy paradigms identified in this paper. Additionally, the program was found to have a range of resource and attendance struggles, and possible actions suggested by staff and volunteers to improve attendance are inadvisable if facilitating food literacy is the primary objective.

FLY is similar to many other cooking driven food education programs in structure and concept (see Chessen et al. 2009, Davies and Thomas 2010, Thomas and Irwin 2011, Thonney and Bisogni 2006). Nevertheless, it asserts its difference in that its food literacy goals move beyond those of other programs. FLY's internal literature establishes its intent to facilitate a more contextualized, critical consciousness of the contemporary food system and its struggles. As demonstrated in this paper, these goals are not fully realized, for the dominant food literacy paradigm instilled in FLY's participants is that of a neoliberal consciousness. Are cooking-based food education programs a useful form of food education programming if the goal is a more critically engaged food literacy? Moreover, what changes could be made to the FLY program that will not only overcome attendance challenges, but also simultaneously instill the dual food literacy paradigms sought by the program? This paper furthers the conversation on what exactly is meant by the term food literacy, and begins to answer the question of what types of food literacy are instilled in participants of programs like FLY. Nonetheless, discussion must continue on what the best form of food education may be if a more critical and engaged food literacy is desired, and if a reskilling of eaters and a reclamation of the food system are some of the ultimate goals.

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APPENDIX I: INTERVIEW SUBJECTS AND GUIDING QUESTIONS

Interview Subjects

<u>Interviewee</u>	<u>Details of interview(s)</u>
FLY participant (current)	One interview in-person (Toronto)
FLY participant (former)	One interview in-person (Toronto)
FLY participant (former)	One interview in-person (Toronto)
FLY volunteer (current)	Two interviews in-person (Toronto)
FLY volunteer (former)	One interview in-person (Toronto)
FLY program coordinator	Two interviews in-person (Toronto); one interview via phone (Toronto)
The Stop Green Barn manager	One interview via correspondence (Toronto)

Interview Questions

Given the semi-structured nature of my interviews, questions were used only as a guide. In actuality, conversations were complex and convivial in nature. As tangents of our discussion led to key insights, I chose to eliminate a number of questions in the moment in order to give more time to the discussion at hand. Therefore, the questions below can be seen as what was intended to guide the conversations, though our true conversations were often much different. Additionally, discrete question sets were created for interviewees depending on their connection to FLY. In the case of follow-up interviews, I created a brief list of talking points but did not follow a specific list of questions.

Questions for FLY Participants

1. How old are you/what school do you attend?
2. What made you want to sign up for the FLY program?
3. Did you have any cooking experience or food knowledge before joining the program?
4. When you entered the program, how would you rank your cooking skills? What about your food knowledge and knowledge of food systems issues?
5. If applicable: when you left the program, what would you rank your cooking skills, food knowledge, and knowledge of food systems issues?
6. What did you like or value most about the FLY program?
7. What was the worst thing about the program, or what would you improve?
8. What did you learn about the most in the FLY program? How was the FLY program beneficial to you? What did you get out of the program?
9. What was it about the FLY program that kept you coming back every week?
10. If applicable: Given that you already finished the FLY program, what is different for you since being in the program? What, if anything, is different about how you're eating? What about how you perceive the food system?
11. In what ways did the program impact your feelings about yourself?
12. How many times per week do you cook for yourself and eat out (before beginning the FLY program and now)?
13. Who is in charge of cooking most of the food at home? Has it changed at all since you finished the FLY program?
14. Do you know what the term "food system" means? Where did you learn about what you just mentioned/described?
15. What's a problem with food or the food system that interests you, and why?

16. How likely are you now to make decisions about food in your life based on your increased awareness of food systems issues after participating in FLY? Can you give an example?

Questions for FLY Volunteers

1. Tell me a bit about your background as it relates to food.
2. Why did you decide to volunteer at The Stop?
3. What were your expectations of the FLY program at The Stop? What did you think its goals/objectives were?
4. What are your impressions of the program so far?
5. What do you like about the program and what would you change?
6. How do you understand the term “food literacy”?
7. How do you see, so far, that participation in the FLY program influences girls’ food behaviors and attitudes both within the program and outside of the program?
8. How does the FLY program increase food knowledge and awareness in its participants?
9. How does the FLY program influence girls’ food skills, food comfort, critical awareness, health awareness?
10. What are your thoughts about the extent to which the FLY program increases the girls’ awareness of problems in the food system or participation in impacting the food system?
11. How could the FLY program be improved as a form of food education to increase food literacy?
12. How do you think participants’ cultural backgrounds or socio-economic statuses affect: a) their food knowledge; b) their “food literacy” before entering the program; c) their ability to increase their food literacy as they move through the program?
13. What are your thoughts on food education programs in general? Do you have any experience with other food education programs? How would you compare them to the FLY program?

Questions for FLY Program Coordinator

1. Tell me a bit about your background as it relates to food, and how you got started at The Stop?
2. When you first started working with the FLY program, what was your impression of it? What were you looking to change?
3. Can you tell me a bit about the goals of the FLY program? Specifically, the goals that The Stop set forth about the FLY program, and then the goals that you have developed for the FLY program?
4. In your “ideal” FLY program, how would you run it? What themes would you teach? What issues would you try and address?
5. How do you understand the term “food literacy”?
6. What are the components of food literacy, in your mind, and how do you think the FLY program is able to teach some of these food literacy components?
7. What do you think are the three main things the girls learn from the FLY program?
8. How does the participant demographic influence what you choose to teach/facilitate?
9. How do you think food justice fits into food literacy?
10. Can you talk about how the FLY program does or does not influence the girls’ food knowledge and awareness of the food system? Which concepts do you think are the most prominently discussed/taught in FLY and which are the least? If there is an imbalance, why so?
11. What are some of the things you struggle with in the FLY program (with regard to its educational/teaching objectives)?
12. How would you improve the FLY program assuming its primary intention is/was to be a form of food education to increase food literacy?
13. How do you think participants’ cultural backgrounds or socio-economic statuses affect: a) their food knowledge; b) their “food literacy” before entering the program; c) their ability to increase their food literacy as they move through the program?

14. What do you think is the purpose of programs like FLY, and other food education programs? What are your experiences and observations around this question?
15. What are your thoughts on food education programs in general? Do you have any experience with other food education programs? How would you compare them to the FLY program?

Questions for The Stop's Green Barn Manager

1. What is your understanding of food literacy?
2. What do you think the FLY program does best, and what does it offer the participants (in practice, not in theory/intention)?
3. Assuming the FLY program is around next year, what would you like to see done to: a) improve attendance and retention; and b) to enhance the girls' ability to increase their food literacy, given that building food literacy is one of the primary goals of the program according to the FLY logic model?
4. Any thoughts on why we had such low attendance in the program this year?