Popular Education Methods with The Seasoned Spoon

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with
The Seasoned Spoon Cafe

A research report about current geographical issues and educational techniques surrounding the global food system

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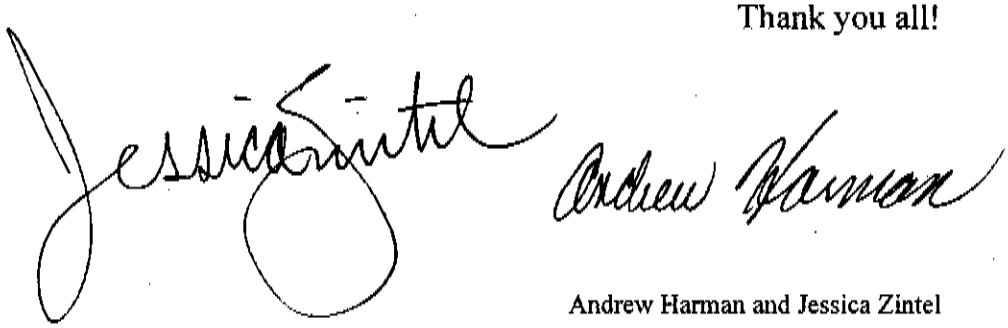
Jessica Zintel and Andrew Harman

I will try to Buy locally now that I understand the big impact it has on life / living.

Acknowledgments

We wish to acknowledge all the people who made this project so interesting and helped us accomplish our goal every step of the way. A big Thank You to Barb Woolner and Christie Nash from the Trent Centre for Community-Based Education for all your support and lunchtime talks. To Sylvia Dick from the Seasoned Spoon for working closely with us to guide us in the right direction (and for making the best ginger cookies ever!) Thank you Heather Nicol and Mark Skinner from the Trent University's Geography department for providing such a valuable course, which has taught us important life skills to be carried in whatever direction we may choose. Westmount Public School and its teachers have been extremely accommodating and made the implementation of our workshop successful and educational, we thank you. We also wish to thank our significant others for standing by our sides and supporting us while we worked on this project.

Thank you all!



Andrew Harman and Jessica Zintel

Personal Preface

Andrew Harman and Jessica Zintel are both forth-year honours students in human geography at Trent University. Upon graduation, both wish to one day become teachers in Ontario. They feel that this research experience will provide them with valuable materials to take into their classrooms.

My interest in food and agriculture sparked at a time when I was forced to eat whatever Aramark was serving that day. It was back in first year, when our 'supper gang' was sitting around the dinning table at Gzowski College with our filled trays in front of us -some trays healthier then others. We first started to question the *all you can eat* attitude of the cafeteria, and then began to wonder what exactly we are eating. We were not wondering the fat content or calories per gram, we were interested in how the food got to our plates, and who was growing it, and in what type of conditions. As first year students, we saw the Sysco truck do its daily deliveries but then the next thing we saw was the food in front of our eyes. What were all those middle steps that it needed to take to get to us? What were we not seeing? At the time I did not know it, but this brief conversation back in first year initiated a passion of mine: food. Since then, my education has centred on the relationships within food systems, specifically the growing disconnect between consumers and their food. Somehow along the way, society has lost the traditional knowledge we once had about the food we consume. We now find ourselves at mercy

with the industrialized global food system. I believe it is important that our society makes an effort to reconnect with our food, and our fellow citizens. It is an easy as going to the farmers market. Personally, I enjoy waking up first thing Saturday morning to go to the farmers market to pick out the cream of the crop. I also like to build personal relations with the hard working people who grow the food I will be consuming. My dream is to one day grow everything I eat and give the rest to my local community.

Jessica Zintel

Food and the issues surrounding it has been an enjoyable course of study for me. There are so many issues and systems below the surface. I have begun to understand some of the strong opinions I have for safe and sustainable agriculture. Being able to educate students through this course on the happenings of today's food systems brings great pride to me and find it satisfying to know that a valuable piece of education is being introduced into the school board. Our unique approach to food issues is more meaningful as we see images and advertising forced upon us by corporations and industries that have been destroying our relationship with our environment and society.

Andrew Harman

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I learned that in some cases, locally grown products are healthier than products imported globally.

Executive Summary

"My philosophy from day one is that I can sleep better at night

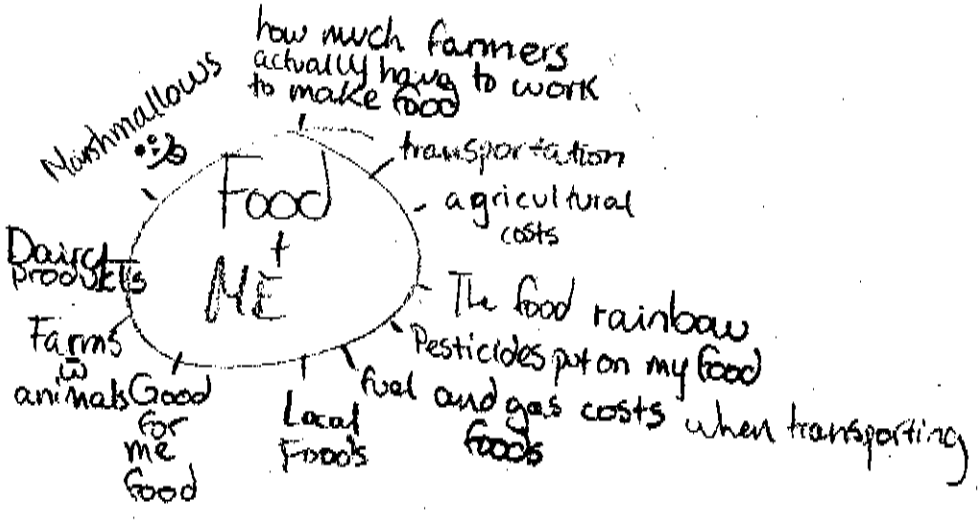
if I can improve an individual's knowledge about food and wine, and do it on a daily basis"

The purpose of this research project is to create a hands-on workshop that will educate grade seven and grade eight students about the complex relationships within the current food systems. The research investigates the opportunities that exist within the school system for educational food programs such as the ones provided, and most effective educational models to successfully convey the information to the participants. The research focuses on the local food systems, specifically how the local food system is more sustainable than the global food system, the history of agricultural geography, as well as the increasing need for food education within the school system.

The interactive workshops created for this research project will convey information that will give grade school students a basic understanding of the relationships within the local food system: economic, environmental, political and social. The activities within the facilitated workshops provide a hands-on approach to reinforce these multifaceted concepts. Three activities have been designed and are accompanied by lesson plans, curriculum links and teacher resources. The three workshops are targeted to specific age groups depending on the content and are called: *A Journey of Food Discovery* (Grade 1-2), *Breakfast: a Global Affair* (Grade 7-8),

Food Fight! A Debate Activity (Grades 9-12). For the classroom pilot project, the *Breakfast: a Global Affair* (Grade 7-8) workshop was implemented both times.

The food programming workshops were designed for The Seasoned Spoon Café, the alternative food provider at Trent University. It is with hope that the workshops will continue to be used as a source of educational outreach for The Seasoned Spoon Cafe. Workshop implementation was performed in grade seven-eight classrooms at Westmount Public School in Peterborough, Ontario.



Who is The Seasoned Spoon?

"An alternative café at Trent University,
providing delectable, locally sourced organic food."

The Seasoned Spoon Café is located on the Trent University's Symons campus (see Appendix A). The café evolved from work begun by Ontario Public Interest Group's (OPIRG's) Food Issues Group (FIG). FIG started with the idea of a Stone Soup Project in 2002 to provide local organic soup by donation. The positive response of this project encouraged a permanent location where they could provide an alternative food source on campus. Now permanently located by the Great Hall in Champlain College since 2003, The Seasoned Spoon is a not-for-profit, co-operative organization offering delicious lunches and snacks for students, staff and faculty. All food serve at the café healthy, organic, local and affordable.

This research project seeks to address a few of the guiding principles. Those guiding principles are as follows:

I. To offer student learning opportunities through paid staff, volunteer work, and Community Based Education courses

II. To strengthen university links with the Peterborough community

III. To increase community awareness of food issues through educational outreach

IV. To be as accessible and inclusive as possible. This will include active outreach to inform our membership of our services and to seek their input.

I learned about how much that the people get paide for how much Effort they put in to a product.

Mailing Address
Seasoned Spoon Cafe
Box #47, Champlain College
Trent University
1770 Westbank Drive
Peterborough, Ontario
K9L 1Z7

Website
http://www.trentu.ca/stuorg/seasonedspoon/welcome.html

Hours
Monday to Thursday: 9am to 3pm
Friday: 9am to 2pm
Weekends: closed

Definitions of Key Terms

Popular Education: An educational technique used to raise the consciousness of individuals. The goal is to allow people to become more aware of societal problems and what they can do to effect change.

Sustainability: The ability to maintain a certain process or state.

Local Food System: An effort to build a locally based, self-reliant food economy. Food's production, processing, distribution, and consumption are integrated to enhance the economic, environmental and social health of a region.

Global Food System: All aspects of the chain that food travels to get from a foreign farm to our table. Large corporations or conglomerations are involved with many parts of the global food system.

Curriculum: The educational requirements for a course outlined by the Board of Education.

Eating locally allows the farmer to get paid more fairly

Agriculture: The practice of producing food and goods through the means of farming. The two contrasting types of agriculture are: sustainable agriculture and intensive agriculture.

Food Security: The availability of food and the ability someone has to access it. Although food yields continue to increase, food security is decreasing.

Industrialization: The transformation from a pre-industrial society into an industrial one is a process of social and economic change. It is highly dependent on technological innovation.

The farmer's market is a good resource for local goods.

Research Questions

"Question everything. Learn something. Answer nothing"

I. How has food systems changed over time?

II. Why is there a need for food education awareness in the school system?

III. What opportunities exist for Seasoned Spoon staff and volunteers to work with school aged children? Are there any liabilities or obstacles?

IV. Are there other groups in Peterborough doing this type of programming?

V. What are effective elements of a successful food workshop?

I think farmers should always get most of the money, because it's really them, who produced the good in the first place. Also, Most of the food we buy, It would be great if we bought most goods locally in Canada.

Literature Review

The literature review presented below provides the context for our research project designed for The Seasoned Spoon. This literature review developed and broadened our understanding of key concepts relating to the changing food systems and approaches to teaching. This section is beneficial for gaining sufficient knowledge in order to move forward with our research. The presented literature review will unfold in two parts. The first part of the literature review will discuss the role of education and popular education methods. Subsequently, the second part of the literature review is a discussion of the literature in the study area of agricultural geography and the ever changing geography of food. The focus of this section will be the profound changes that occurred in the second half of the twentieth century. For the purpose of this whole research project, the first and second parts of this literature review cannot be viewed as separate aspects food and education, and education and food, are interrelated, inseparable and unified.

The Role of Education and the Loss of Food Knowledge

The traditional knowledge of food was a practice once mastered by the people of Canada before the agricultural and industrial revolution. Food was an integral part of the education that children received. They would learn about seasonal fruits vegetables and animals. The ways to find and prepare food during each season was also taught. This teaching did not take place in the

classroom but was passed from generation to generation through practical teachings and experiences.

Today the importance of education in regards to food has only increased. In an age with Genetically Modified Organisms (GMO's) and international trade, understanding the production and distribution of food is more important than ever. Traditional knowledge about the food we eat is non-existent instead being replaced by a concept called nutritionism. Pollan (2008) argues that the Western world has become a society so concerned with science-based nutrition that we have lost the traditional knowledge that once was grounded in our culture. He states that the created nutritional confusion and anxiety about our daily food choices only put money in the food industry's pocket while society seeks 'professional guidance' to combat the health epidemics of: diabetes, heart disease, cancer and obesity. Societies now believe that professional dietary advice is the only way to lead a healthy and happy life Pollan (2008) makes the bold argument by saying that "most of the dietary advice we've received over the last half century has actually made us less healthy and considerably fatter". This is a result of the lack of education and the industrialized food system.

With the declining passed-down traditional knowledge of food, and raising power of the globalized food system, Western society needs as way to reconnect with the food they eat. Society must become more aware of the relationships between individuals and food, food and

nature, and nature and culture. Throughout history, nature is what food is: a relationship among species within a system, typically called a food chain see ecological thinkers about the food chain, Weston Price (2008) and Sir Albert Howard (2007). Somehow the western diet has become blinded from these relationships and ignorant to the traditional knowledge we once had about the food we eat. The relationship between plants and society cannot be more intimate; the health of plants reflects human health, and the health of humans provides an indication about plants and nature. The current state of human health has never been this bad and the same can be said about our environment.

Currently, food awareness is simply not part of the curriculum that Canadian school children receive. As the importance of our food system becomes more prevalent in our agricultural practices it is essential to educate today's youth about the two food systems. This research project is an effort to raise awareness within the school system.

The importance of food and agricultural education is often considered to be useful only to rural communities. Rural community members are not the only people who need to know about food. The truth is, if you consume food, you need to know where it comes from and how it is grown. This is examined in Benjamin Davis' (1910) article titled *Agricultural Education*, which discusses the importance of spatial location of teachers who have completed a course on agriculture education. Davis examines the program that educates teachers on how to introduce

agriculture in the classroom. The study shows how the agriculture course is focused on those teachers who will be teaching in rural communities where agriculture is a direct part of daily life. It proves that there is a disconnect between the desired outcome and actual outcome of this educational program. Many teachers who go through this program do not end up teaching in rural communities while many undergraduates teaching in rural communities do not have this course as part of their training (Davis, 1910 pg 377). This shows that our educational focus has always lacked an agricultural element to it. As well as in the early 1900's, agriculture and its surrounding issues should be taught in the schools, not only in rural communities but also in the urban centres.

Luther Tweenten (1999) talks about how the recent focus of food education is on global food security in his article titled *The Economics of Global Food Security*. It is stated that the focus of western society has been on food security. This is defined as the "access by all people at all times to sufficient food to meet dietary needs for a productive and healthy life."(Tweeten, 1999 pg 474) The World Bank and UN food and agriculture organizations also use this definition for food security. This definition of what our society hopes to gain from food, demonstrates perfectly one of the problems in our society. The definition talks of food as nothing more than a commodity people require to survive. This definition leads to the understanding that having enough of this product therefore gives you food security and happiness. Attached to this definition should include that access to food that is healthy for the individual, environment and

society is required to have food security. Being able to purchase processed foods at convenient times and places does not portray food security in our minds. It requires being secure in the future and for that to be guaranteed we need to reduce our dependence on the global food system and revert to community based agriculture.

Popular Education

Francisco Vío Grossi's (1984) article titled *Popular education: The Latin America Experience* defines popular education as an "alternative model for social change at the local level."(Grossi 1984 pg 303) This definition explains clearly what the focus of our workshop is. Grossi's literature is great for our research due to its excellent definition and explanation of this term.

Griff Foley's article titled *Clearing the Theoretical Ground: Elements in a Theory of Popular Education* (1998) talks of popular education involving "forms of education which involve people in processes of critical analysis so that they can act collectively to address inequalities and injustices". This literature also looks at the history of popular education. Collectively both Foley (1998) and Grossi (1984) discuss its roots and how it began within important social and political movements.

Seasoned spoon

Unfair pay

Fair pay

Popular education's notion of being an alternative to the official or common educational theory was originally designed to enlighten people who were oppressed. (Grossi 1984 pg 307). It was preached during various Latin American liberation movements as well as many social movements as a way to educate the public in order for them to realize the "real causes of the problems that they encounter, in order to increase their capacity to mobilize themselves by participating in organizations and supporting them."(Grossi 1984 pg 307). In a less militant way, this is what we want our lesson to accomplish. We want students to realize the causes to the problems that affect their day to day lives.

Popular education is an emerging philosophy as observed in the literature and will become more prevalent in the near future. Its adoption is on track to take the form of a common teaching method for many situations in our school system other than the original purpose as an alternative to standard education for the oppressed. For the purpose of our project we still desire the same outcome from the use of popular education but we do not intend to create public discontent, instead we only wish to give students the opportunity to make educated decisions on their food choices.

The feedback that we have received thus far has verified that the popular education method for teaching this material is appropriate. There are many specific examples of popular education programming centered on food education. Recent case studies support using popular education as a proper tool to introduce knowledge of food systems into the curriculum.

Organizations such as, Growing Chefs and Chez Paniss, are great examples of efforts being made at a local level that focuses on developing hands-on curriculum in school kitchens, gardens, and lunchrooms targeted at public schools. The curriculum aims at inspiring students to choose healthy food and help them understand the impact of their choices on their health, the health of their communities, and the planet. Growing chefs aims to inspire youth in a classroom setting by visiting the classroom every two weeks, helping the students' plant and tend to indoor vegetable gardens. Students participate in games, lessons and activities that focus on plant growth, vegetable exploration, sustainability, and nutrition (Growing Chefs online). Popular education examples such as these, attempt to inform and educate individuals through participatory methods to create social change and awareness.

Popular education has proven to be an effective teaching paradigm to use for the creation of our lesson plan. The ideas behind popular education are in line with what we are attempting to accomplish. Through our workshop we hope to highlight the issues of today's food systems to the students in order to empower them to become agents of change in their communities. Popular education is a participatory method where students are encouraged to think about their own lives and experiences to share and discuss their views and concerns. We hope to use this method to educate about both the local and global food systems. Once the benefits and weaknesses of both food systems are discussed, students will have the framework to make educated decisions on their involvement in both of the food systems. This method will be effective because the

definitions and practices of both are in the middle of a revolution being fairly fluid. Since there is currently no set in stone correct way to make purchasing decisions, the popular education method will get students to think instead of simple telling them what is the correct answer.

Relationship between Health and Education

Our workshop represents an attempt at educating youth on the importance of understanding both the local and global food systems and their impacts on our society. Our concern regarding the lack of food education is widely shared among teachers, health professionals, and scholars alike. In our research we found a plethora of articles detailing the importance of education and health. Understanding what we eat is necessary for understanding our own health. This is one of our outcome goals for our workshop.

Many authors have emphasized the link between health and education. In *The Impact of Health and Nutrition on Education* by author Behrman (1996) links health and education as a topic requiring heavy research. The article examines the extent that health affects educational attainment levels. It is shown that there is a positive correlation between the two, however the extent is being debated. As education better addresses the issues surrounding making healthy and smart food choices, students amidst today's food economy will be better endowed to make informed decisions. Our research project is to explore, using trials in the classroom, how a comprehensive and highly adaptive workshop can aid in educating today's youth on making

smart food choices. The workshop also highlights many of the issues faced today in both the local and global food system.

In the article *Teacher to Teacher* (1981) by David R. Stronck healthy eating practices are discussed and addressed by a statement made in the Sergeon General's Report. It talks about the responsibility of teachers to include food education in their lesson planning. "Teachers, in particular, need to receive training in nutrition; and nutrition should be an integral part of the school curriculum.... Food choices are determined in part by the nutritional knowledge of the person who buys or prepares the food. Other factors include availability, personal and family likes and dislikes, and marketing and advertising practices. These factors should be addressed in educational initiatives to promote good food habit." (Stronck, 1981 pg 278)

Further literature points to the somewhat mysterious lack of concern over food quality. Protests over quality of air and water are common and yet there is little concern or focus on the quality of what we eat every day. The article titled *The Need for Nutrition Education* written for *The American Biology Teacher* (1976) discusses health implications abundant with today's lifestyle. The article addresses the fact that dietary habits have been worsening for years leading to obesity and a plethora of health issues. There are many economic and environmental impacts that can be discussed pertaining to today's diets. The lack of fibre rich foods such as fruits vegetables, whole wheat, wheat bran, peas and beans have caused some serious health risks to

arise. These include the development of diverticulosis, constipation, irritable colon, diabetes, heart disease and obesity. (Need for Nutrition Education, 1976 pg 19). Due to the prevalence of dietary problems the need for food education in schools is more pressing than ever. Throughout our workshop students will learn about the impacts of various foods on both themselves and society.

There are efforts being made to address the lack of food education. Whitehead et al. Discusses how the health department is assisting with education in the school board. Their article titled *Health Department Assistance in Nutrition Education in Elementary and Secondary Schools* (1951) highlights all the various groups involved in educating in the schools. These groups range from nutritionists, nurses, sanitary engineers, medical social workers, dentists and dental hygienists, health educators, and physicians (Whitehead et al.,1951 pg 307). There should be no need for these groups to come into the school. The issues that these groups address which include eating for a healthy lifestyle should be mainstream education and should be taught by every teacher. With this thought we have created our workshop to be accessible by all teachers. In the future we hope to be able to give teachers our workshop package and they can run the workshop themselves. Our workshop has been designed on the popular education framework and is an example of great way to educate the youth of today. The benefit of using popular education to inform students about food issues is supported by our literature review.

Geography of Food

Food and place are intertwined in robust ways in the geographic imagination and central to our life world (Kloppenburg *et al* 1996). Food is the common factor between all living things because it is necessary to sustain life on this planet. However, the importance of food means more than feeling full at supper time or getting your daily recommended intake of fruits and vegetables. The production of food, the distribution of food and the preparation of food are estimated to account for over half of all the work done in the world today (Grigg 2005 pg. 335). Food and agricultural activities are also a means through which social and political relationships develop. An example of such a relationship is the political dependence Cuba once had with the USSR before its collapse. Cuba depended solely on the USSR for all inputs needed to grow food (i.e. chemical, mechanical, and the biggest being petroleum). Due to this basic relationship, many other relationships developed.

Knowing the importance of food, it is ironic that there is no sub-disciplinary body of research within human geography revolving around *just* food. There is no single body of geographic literature on food that explores its own themes and problems. This may reflect the ubiquity of food-related processes and relationships (Johnston *et al* 2000). Food has relationships in almost every part of geography imaginable –economic, political, cultural, social and biological. Johnston *et al* (2000) says "food can only be understood in the context of a range of wider social, political and economic relations". Thus, it is a subject matter that doesn't sit

neatly within conceptual and spatial boundaries. Instead, the tendency is to view food as an illustration of other geographical topics. For an example, the book by Bell and Valentine (1997) studied food consumption, focusing on how different scales of space -from the body up to the world-system- exemplify larger geographical issues. The context of Bell and Valentine (1997) agrees with the famous Western philosopher, Ludwig Wittgenstein (1953), when he first stated "we are what we eat". He discovered then, food and its consumers are uniquely fixed together. Food is a symbol for which we like most or least in society. This statement raises a number of geographical questions or inquiry. The most important question is: How does the origin(s) of our food influence human bodies? And what does that mean in the context of a larger society? For the purpose of this review, 'food' will act as a lens to understand larger geographical events.

Agricultural Geography

Agricultural geography is a sub-discipline within geography focused on the 'spatial distribution of agricultural activity' (Johnston *et al* 2000). Agricultural geography, like agriculture itself, has experienced great changes during its course of time. This section attempts to illustrate the significance of agricultural geography in relation to historical developments and conceptual evolutions of geography as a whole. First, we explore the geographic history of land cultivation and domestication. This was before the world wars, when society had to farm the land in order to survive. Second, we discuss the literature around the monumental changes that occurred between 1945 and 1950 that caused agricultural geography research to head in a new

direction. And lastly, we look at the emerging geographical concepts that will face agricultural geography research in the near future and how it relates to food education.

As previously stated, agricultural geography, and food itself, has undergone profound changes, specifically starting in the second half of the twentieth century. Around ten to twelve thousand years ago, human beings began to domesticate animals and plants as a source of food. Before this agricultural revolution, humans depended on hunting and gathering for all of survival needs. Although there are still hunter-gatherer groups in existence, most human societies have made the switch and are now dependent on agriculture. Evolutionary biologist, Jared Diamond, has spent his life discussing the main processes that affected human development across the globe. In his book *Guns, Germs and Steel* (1997), Diamond argues that the differences in power and technology between human societies (i.e. Western societies and New Guinea societies) does not reflect a weakness in culture or human strength, but rather originates in environmental differences that has facilitated ideal resources. Diamond explains that the emergence of agriculture began, and sped up, civilization development. The first evidence of agriculture arose out of trial and error with many different species of plants and animals given in a geographic location. The success of these experimentations depended heavily on the geographic location, which was host to varying environments and climatic occurrences (*see* Diamond 1997). The geographic space and place where domestication happened, determined the fate of the societies who lived there. This concept of agriculture and domestication reflects the idealisms of

environmental determinism. Environmental determinism is a geographic concept primarily concerned with 'recognizing the laws of nature' (Holt-Jensen 1988). It emerged pre-Darwinism and is governed by the belief that the surrounding environment controls human activities. For the purpose of this literature review, the 'human activities' are agriculture and domestication. Since ancient times a belief in the moulding power of the physical environment on human culture and constitution has attracted many advocates (Lewthwaite 1966). Geographic knowledge was constructed by studying the effects of the environment. For an example, Ellsworth Hungtingdon (1905) was an influential geographer who related the rise of civilizations in the mid-latitudes and lack of the development in the tropics to climatic conditions. On that note, climatic conditions not only determine what and how societies grow their food, but also determine social relations. Thus, social relationships are one where the physical characteristics of the environment largely determine human activity, psychology and physiology. Environmental determinism attempts to explain the relationships between nature and society. As with most academia, there are criticisms to this school of thought. Rather than seeing environmental characteristics as the determining aspect of culture and society, Carl Sauer (1925) argues that:

> The cultural landscape is fashioned from a natural landscape by a cultural group. Culture is the agent, the natural area the medium, the cultural landscape is the result, under the influence of a given culture, itself changing through time, the landscape undergoes development, passing through phases, and probably

> reaching ultimately the end of its cycle of development. With the introduction of a different –that is-alien culture, a rejuvenation of the cultural landscape sets in, or a new landscape is superimposed on remnants of an older one.

As seen from the quote above, Sauer is concerned with countering the ideals of environmental determinism –humans shaped by their surrounding environment. Sauer stresses that culture is a force in shaping the environment's surfaces. It must be noted that within both schools of thought, Hungtingdon and Sauer, that "the physical environment retains the definition of central significance, as the medium with and through which human cultures act" (Johnston *et al* 2000). It might be useful now to examine the middle ground that encourages an interdisciplinary approach to viewing culture and the environment.

Paul Vidal de la Blache (1845-1918) is regarded as the founder of modern French geography who argued against deterministic concepts -"realizing the futility of setting humanity's natural surroundings in opposition to its social milieu and of regarding one as domination the other" (Holt-Jensen 1988). According to Vidal, it is unreasonable to separate between nature and culture because they should be seen as united and inseparable. In an area of human settlement, nature changes significantly because of the presence of human beings. Therefore, these changes are greatest where the level of material culture of the community is the highest. The animal and plant life in Ontario during the twentieth century, for example, was

quite different from what it would have been had the country not been inhibited by human beings for centuries. Thus, it is impossible to study the natural landscape as something separate from the cultural landscape because each society adjusts to the environment in its own way. Each society has characteristics, which will not be found in other places, even in places where environmental conditions are practically the same. Essentially, human and nature adapt to each other, rather then the concept of nature dictating human culture (environmental determinism). It is the relationship between humanity and nature that is impossible to distinguish the influence of humanity on nature from that of nature on humanity (Grigg 1965).

Understanding these contrasting ideas about nature and culture, and how each of them interacts with each other is crucial for this research project. What we present in our workshop discusses the relationships between individuals within a society and the surrounding environment –how our choices affect the environment and how the environment dictates what we eat and when we eat it. Our research project is solely focused on the Peterborough region and its local agricultural activities. The following sections are a discussion about the evolution of the present day food systems.

The Industrial Revolution of the nineteenth century produced great changes, not only in agricultural development, but also in economic, social, political and environmental sectors. Vidal identified the year, 1846, as the year when the "finely balanced interplay between humanity and nature was profoundly disturbed". The building of canals and railways initiated

the decline of the traditional local, self-sufficient economy. Industry was developed on the concept of cheap and efficient transportation that could ship mass-produced goods to a wider market. Food became a commodity and was no longer delicately intertwined with the local environment. The eighteenth century's European societies became sources of raw agricultural and mineral products for the industrializing nations. As industrialization increased, the study of regional geography decreased because of the widespread growth. Wrigley (1965) put it this way:

> The regional period of geographic methodology like the 'classical' (including determinism) has left many traces, some of which will perhaps prove permanent, on the methods used in organising and presenting geographical material. Any discipline is both the product and the victim of its own past successes and these were two of the most important successes thrown up by geographical scholarship.

Western countries went through a radical change with the growth in real incomes that followed industrialization in the 19th century. In the nineteenth century, agricultural practices in Western Europe were transformed by a number of economic and technological changes: 1) The rapid growth of agricultural productivity allowed production and consumption to outpace population growth which led to a long-term decline in the real price of food; 2) The improvement in transport reduced the cost of moving foods, together with the introduction of refrigeration in the 1870s which allowed the import of cheaper foods, and 3) The growth of real incomes, which followed industrialization beginning in North West Europe in the later nineteenth century (Grigg 1998). The Food and Agriculture Organization (1974) states the between 1950 and 1979 food

production increased at much higher rates than in the past. Relationships between space, place and society changed which make the study of agricultural geography multi-dimensional, rather then just a regional concept.

Until the 1950's, agricultural geography was a sub-discipline to economic geography because it was concerned with the distribution patterns of agricultural activity (Ilbery 1987). The focus during this time studied variations and changes to the pattern of agricultural land-use. As industrialization progressed, the economic significance of agriculture declined (in terms of GDP), so the interest in the subject deceased in geographical research as a whole. The reason why the economic significance decreased was because society was turning to 'professional' and manufacturing jobs, especially in the automobile sector. Thus, geographers turned away from the belief of farming as a separate area of study, and instead, focused on the relationships and ideas linking agriculture to a more complex geographic framework (*see* Geography of Food). Much of the current geographic work on food and agriculture can be traced back to a body of scholarship concerned with describing the structural dimensions of what was gradually seen to be a dominant, exclusive, and global-scale post-War system of food production and consumption (Friedmann & McMichael 1989). In many respects, agriculture was taken as a unit of analysis through which the broader shifts occurring in the post-WWII capitalist world could be explored (Niles & Roff 2008). One theoretical framework common to many early studies is the 'food

regime' framework. Food regimes were constructed to broadly illustrate the industrial, institutional and social aspects of food production, distribution and mass consumption.

Moving on to the 1950s-60s, it was the time when qualitative research methods came under attack; geographers had been skeptical of the formulation of general and theoretical laws, partly as a reaction against the crudities of environmental determinism (Holt-Jensen 1988). Out of these discussions emerged the quantitative revolution. The revolution is considered as the "radical transformation of spirit and purpose" (Burton 1963) which Anglo-American geography underwent in the 1950s-1960s following the widespread adoption of both inferential statistical techniques and abstract models and theories (Johnston *et al* 2000). The quantitative revolution brought a rush of science-based, theoretical models from other disciplines (i.e. *industrial location theory* and *transportation models*). More generally the quantitative revolution was defined by an innovative set of geographical practices that stemmed from a distinct set of technical and theoretical competencies (Johnston *et al* 2000).

Agricultural practices during this time reflected the scientific idealisms of quantitative geographical research. Agriculture was now characterized by cheap food for the urban public by using agricultural production through massive infrastructure projects, and science-based research initiatives. Geographic research now studied how agriculture turned into a web of policies, science, and multi-institutional sectors which was taking over the local, sustenance type of

agriculture. This agricultural system, which is intensive, expansionist, and based on the expansion of world trade, food, ever-increasing farm sizes, and the use of science/technology to increase output (Meyhew 2004). Unfortunately, this type of food regime is associated with environmental degradation. For an example, intensive farming operations involve a high reliance on pesticide and fertilizer use that creates pollution and human health concerns. This food regime is referred to as productivist. A succession of financial, food and farm crises in the 1970s and 1980s proved difficult to integrate into a conceptual framework emphasizing coherence and consolidation (Niles & Roff 2008). The idea of 'agricultural progress' and productivist society began to backfire. That indicated the need to reassess the basic assumptions about the fundamental elements and character of 'food systems' and their potential to change. In the 1990s, agricultural geographic research began to look at the wider organization of capital accumulation by focusing on the social, economic and technological ties between three sets of industrial activities, those of food raising, agricultural technology products and services, and food processing and retailing (Johnston *et al* 2000). This shift reflects the influence of the quantitative revolution and how the 'grip' of the revolution began to loosen due to emerging issues centered on poverty, civil rights, the environment, gender and racial equality, and war. Debates surrounding these issues proved that the quantitative revolution was unable to address them. As Harvey (1973) put it, "There is an ecological problem, an urban problem, and international problem, and yet we seem incapable of saying anything of depth or punditry about

any of them. When we do say something, it appears trite and slightly ludicrous. In short, our paradigm is not coping well. It is ripe for overthrow."

> Industrialization was a battle with 19th century ecology to win breakfast at the cost of smog and insanity. Wars against ecology are suicidal. The U.S. standard of living is a bourgeois baby blanket for executives who scream in their sleep. No Pleistocene swamp could match the pestilential horror of modern sewage. No children of White Western Progress will escape the cries of people forces to haul their raw materials (pg.18).

The quotation is from a book called *The Sixties: Years of Hope, Days of Rage* which reflects the role of food in 1960s activism based on an emerging ecological consciousness, which relates to our next concept called radicalism.

Radical geography is a term that was introduced in the 1970s to describe the increasing volume of geographical writing critical of spatial science and of positivism (Johnston *et al* 2000). Briefly, positivism believes that everything we know about the world is based of science. The radicalism concept is known for ultimately broadening the field of geographic research because it critiqued the ideals of the capitalist society, which dominated every aspect of life, including agriculture practices. A sequence of events in relation to the radical school of thought happened during the 1970s that began to transform agricultural geography. Out of it emerged the 'post-productivist' food regime. This transformation was characterized by the attention to a wider

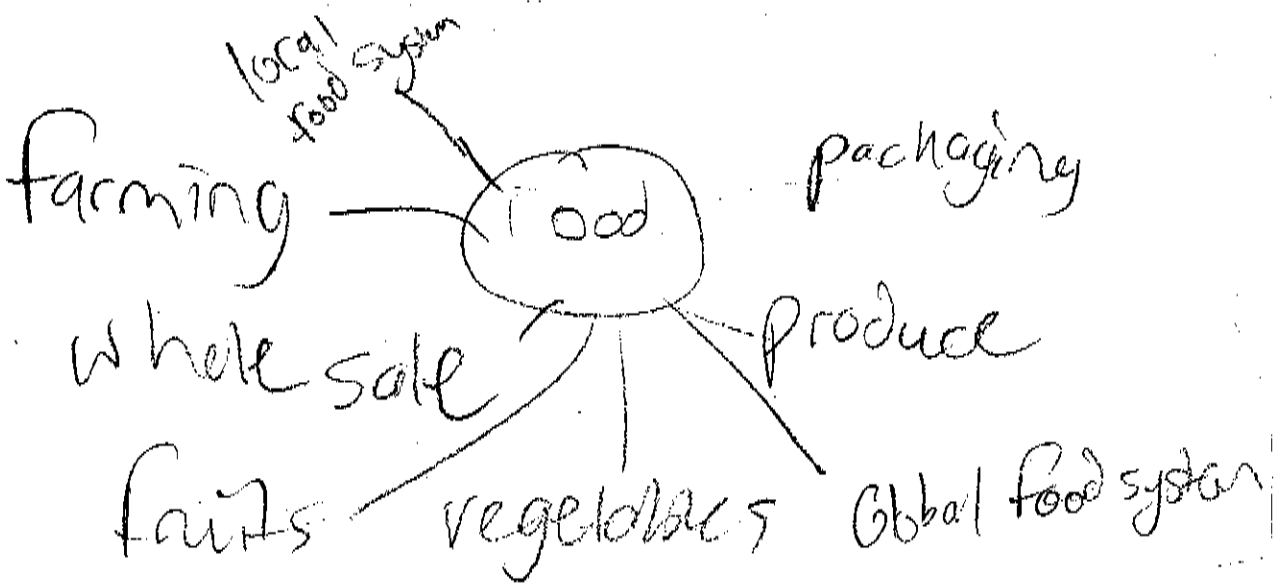
range of actors and agency and a broader definition of the constitutive elements in agrifood studies, and increasing perception of the need to include nature and landscape as dynamic element in agricultural and food system change (Winter 2005). Also, growing concerns over food quality, environmental regulation of agriculture, and the creation of a more sustainable agricultural system defines the post-productivist movement. Agriculture geography studies tend to be much more aware to the fact that agriculture change is shaped by different places and at different scales.

The industrialization of agriculture starting post-WWII caused radical transformations through mechanical, chemical and biological (i.e. GMO) technologies. These transformations caused many environmental, animal and human health issues, which now have to be addressed. Our research project addresses many of the concepts just review in geographic literature. An emerging question the research project is focused on is that of *food consumption* -the issue of social construction of food quality –the idea that what constitutes 'wholesome', or even 'sufficient', food is by no means standard or unchanging in human societies but is the outcome of complex cultural processes in particular times and places (Marsden & Arce 1995). Another explores the cultural meanings and practices that make food consumption much more than a question of nutrition or sustenance (Marsden & Arce 1995).

I learned that in the Global Market Farmers don't make that much money

We live in a world of global food. As we head further into the post-productivist era, an alternative food economy is establishing itself within local societies. An example of an alternative food system is the popular "100 Mile Diet" by Alisa Smith. It is a response to the poor food security, the dependency on corporations, and the social and environmental issues the global food system has caused. The emerging local food economy is focused on providing an alternative food process. Agricultural practices have transformed to include 'sustainable processes' which restrict the use of pesticides and fertilizers and develop according to the natural ecosystem. Practices are changing from large-scale, corporate owned farm operations, to small scale, independent operations. Societies are beginning to see the importance of local economic and community development. Individuals are responding in various ways. They are creating personal relationships with their food sources through to means of CSA (Community Supported Agriculture), farmers markets, community/individual gardens and local food co-ops. Organic and 'GMO free' are becoming everyday terms to describe the food we eat. The 'turn to quality' in the food market has been constructed around consumer concerns over human health and food safety, the environmental consequences of globalized and industrialized agriculture, farm animal welfare and fair trade (Murdoch et al 2000). Such concerns are seen as the prime motivating factors in a move away from the homogenized products of the global agro-food industry in the western world, with quality seen as inherent in more 'local' and more 'natural' foods (Murdoch *et al* 2000). The changing direction of agricultural geography is very exciting and holds great

opportunities for research interests and new agricultural practices themselves. Our research project is a testament to this statement and justifies the need for this type of research.



Methods

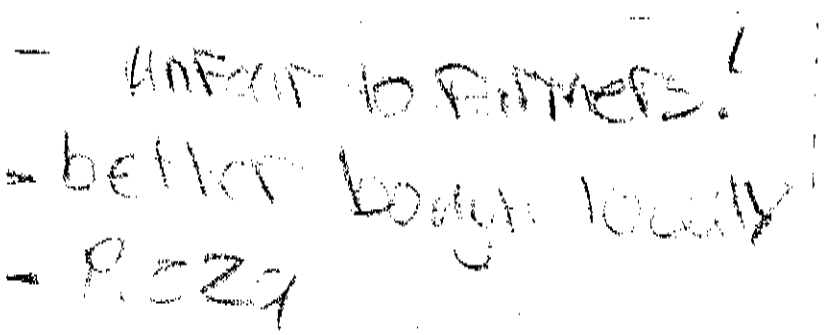
The first step of this research project was to speak with The Seasoned Spoon to learn what their needs and expectations of the project entailed. The Seasoned Spoon was interested in a project related to food related programming and how they would enhance their educational outreach program as stated in their mandate. This was overseen by the hired outreach coordinator (and best cookie maker), Sylvia Dick. The decision was made to produce three separate workshop programs for varying grades (see Appendix B, C & D). All of these workshops were retrofitted to meet the specific Ontario curriculum needs.

Literature from books, journals, and websites were reviewed to get a better understanding of the food systems and agricultural geography. This also provided a basis for defining the role of education as well as education models and effectiveness. There is extensive research on the loss of traditional knowledge of food, the industrialized food industry, and the widespread health concerns of the Western diet. Literature that was not addressed in this research project pertained to problems of inequality and distribution of food.

After reviewing literature about food systems and education, initiatives of food education hosted by similar organizations was explored. Educational websites, brochures and other educational workshops were consulted to achieve this task. Each example of a workshop and website provided a base to determine the needs of the educational outreach program of The Seasoned Spoon. During this procedure, a collection of resources was gathered that would be of

use to The Seasoned Spoon for further outreach initiatives. These resources are organized by theme and can be viewed in Appendix E.

The final step was to implement pilot projects in grade seven-eight classrooms to observe the effectiveness and participation of the *Breakfast: a Global Affair* workshop. Westmount Public School on the west side of Peterborough, Ontario was the location of implementation. A questionnaire was designed for all the teachers to provide feedback about the workshop (see Appendix F). The first pilot project was facilitated on December 10, 2008 to the only 'gifted' class in the Peterborough Kawartha District school board. The workshop was revised to accommodate the teacher feedback we received, and then the second pilot project was implemented on February 10, 2009. Close attention was paid to the revisions made from the first workshop and the student response rate. Before starting the workshop, we asked all the students to answer on a piece of paper, "What does food mean to you?" and then after the workshop had finished we asked them, "What do you know now, that you didn't know before we began?" The answers varied within the class, and between each class (see Appendix G).



Ontario Curriculum Links

The Ontario curriculum links that we have identified were drawn from the 2004 curriculum package. This is the most recent revision to the curriculum. For further comparison, the curriculum can be accessed online through the Ontario Ministry of Education at: http://www.edu.gov.on.ca/eng/curriculum/elementary/sstudies.html. It is important for the Seasoned Spoon to check the web site annually for revisions. The lesson plans we have provided fulfill various curriculum requirements at the time of design, as of April 2009. It must be noted that revisions could occur and therefore close monitoring of changes must take place.

For the purpose of our geography research project we have outlined, in detail, the relationships between our food-related workshops and the study of geography. The focus here is Grade 7 and 8 because they were the target audience for this research project. There are however, many other Ontario Curriculum links (in various grades) that this food workshops could be linked to, such as science and technology, health, history, and even math. The Grade 7 and 8 Ontario Curriculum links in Geography are listed as follows:

- Investigate and report on world patterns of landforms, climate, and vegetation that are favourable to specialized types of commercial agriculture (e.g. tree farming, potatoes, cotton, rice, coffee, bananas, tobacco, sugar cane, sheep, beef, dairy farming).

- Identify and describe the types of land use (e.g. residential, recreational, institutional, commercial, industrial, agricultural; for transportation, communication, utilities; public space).
- Explain the geographic concept of environment (e.g. "environment" refers to physical surroundings and conditions, particularly as they affect people's lives).
- Identify the characteristics of the three types of agriculture – subsistence, commercial, and specialized – and the differing climate, topography, and soil conditions that are favourable to each type.
- Explain how natural vegetation patterns result from the interaction of several factors, including climate, landforms, soil types, and competition for available nutrients (e.g. *landforms:* plains/ grains; *climate:* tropics/fruit).
- Explain the geographic concept of region (e.g. a region is a part of the earth's surface that has similar characteristics throughout its extent; the concept of region helps to simplify complex ideas).
- Explain the geographic concept of interaction (e.g., the environment provides opportunities and challenges; people change the environment as they use it).
- Explain the geographic concept of movement (e.g. "movement" refers to the flow of people, goods, and information and the factors that affect this flow).
- Describe how the following major factors influence commercial agriculture: location, climate, raw materials, market, labour, transportation.

- Outline the fundamental questions that all economic systems must answer: what goods are produced; how they are produced; for whom they are produced; by whom they are produced; and how they are distributed.
- Describe ways in which technology has affected our use of natural resources (e.g. with respect to their discovery, management, extraction, processing, and marketing).
- Explain the concept of sustainable development and its implications for the health of the environment.

Global Food System
resteraunts
my 3rd grade friend Lianna
Locally grown
whole wheat bread
Farmers' Market
Apples
An organic grocery Store in Austin, Texas
rice fields
underpaid farmers
Grandpa! (a farmer)

Results

In order to keep complete confidentiality, we will be addressing the classes we implemented the workshop in as the Grade 8 Class and the Grade 7/8 Class. The teachers who provided feedback will not be named in any of our follow up literature. The research results presented are qualitative, rather than quantitative. Our results came in three parts: 1) analysis of the success of our workshop based on student knowledge of applicable themes before and after our workshop; 2) results to our questionnaire that was filled out by the host teachers; and 3) personal observations of the successes of our implementation and our observations of the workshop in general.

At the beginning of the research report, we have listed five key research questions that we have answered through the various parts of this report. Some have been answered in our literature review, while others have been addressed through our directory of like minded groups. Answers to the questions: "Why is there a need for food education awareness in the school system?" and "What are effective elements of a successful food workshop?" are addressed in the results section of this paper.

I learned that farmers do not make Much money through global selling.

1) Student Knowledge

"Why is there a need for food education awareness in the school system?"

This can be observed in our student knowledge results. It can be observed that students' awareness of food issues was weak prior to our workshop. This is why there is an importance to teach food education. Food is such an essential part of our life today with issues from health of ourselves to health of our environment being addressed through food. Our literature review addresses some of the reasons why there is a need for food education in our school system. These results confirmed that students would benefit from the knowledge gained through our workshop. Students were unaware of the differences between the global and local food systems before our workshop and they retained an understanding of these concepts after our workshop. This is illustrated in the graphs in Appendix G.

Assessing the success of our workshop based on student knowledge yielded interesting results. The discovery that what we taught was retained by the students creates a great sense of pride in our project. We were shown first hand that the program we developed was interesting and educational for the students. We assessed the students understanding of the topic before we began the workshop by asking them what they think of when we ask about 'food and you'. This can be seen in Appendix G in the form of a mind map on two large pieces of paper with 'food and you' written in the middle with ideas spreading out around it. We did this for both classes and was amazed at the differences in results. The grade 7/8 split gifted class spoke of many of

the themes in our workshop. The grade 8 academic class had very few ideas about food when asked the same question (see Appendix G).

With two classes that had very different base knowledge of the issues relating to food we anticipated encountering different results after we had taught our workshop. We were correct in this assumption. The graphs titled *Classroom #1 (grade 7 and 8 students)* and *Classroom #2 (grade 8 students)* show this. It must be noted at this time that we asked slightly different questions of each class after the workshop. We did this because we wanted to compare results with both questions in order to create better feedback for future implementation of this workshop. In the first class we asked what comes to mind when you think of food. And for the second class we asked what did you learn about that you did not already know. The first question yielded results much like our pre workshop activity with many students creating mindmaps. The second question yielded full sentence answers with ideas better articulated but fewer ideas on the paper. There are benefits to both. We get a larger picture of what the students learned from the first question but they explain what they learned much better with the second. The greater detail in responses from the second class can be seen on the students answer sheets as raw data in appendix G. This occurred even though the second class had shown a weaker understanding of key concepts prior to the workshop.

Far trade

Common themes in these graphs show that knowledge of both local and global food systems were retained and that both classes were thinking about more complex themes after our lesson had been taught. This is how we have accessed that our workshop fulfilled its outcome goals.

"What are effective elements of a successful food workshop?"

The observations that we as workshop facilitators made help to answer this key research question. Below are results that we made as well as the feedback from the host teachers. Both sets of observations answer this question by identifying areas of strength in our lesson and areas that need to be examined as part of future research. The feedback from the host teachers were acquired from a questionnaire that we developed prior to arrival at the school. It included many leading questions that encouraged the teacher to record whatever came to mind in terms of strong areas within the lesson, areas requiring another look effectiveness and validity of our workshop.

The question of success of our workshop can be observed in our results based on student knowledge prior and post workshop implementation. Our results showed that food based, educational attainment by the students was successful. The ways that we achieved this success started with a good knowledge base of the issues followed by effective methods of implementing this in an easily accessible fashion for the students. We have reflected on and observed many

aspects of our lesson that worked. Our general observations and comments on our workshop as facilitators and how to make it run smoothly in the future include:

- The recipe assignment should be provided to the teacher one week before the workshop takes place. This can be used as a pre activity to introduce the students to the subject matter. The assignments will then be ready to be discussed during the workshop. This recommendation came from the realization of the difficulties associated with having work assigned and followed up by the students' teacher. Problems can also arise with the facilitator trying to collect the assignments after they have already left the class and moved on to other things.
- Facilitators to run this workshop in the future must be proficient at stimulating discussion. We realized that we had two very different levels of participation in the classes and therefore a better framework is required for future implementation. The grade 7/8class was a gifted class and the discussion reflected this. The students were more vocal and had many opinions and ideas about the various topics and questions that we covered. The grade 8 class had more difficulties relating our discussions to firsthand experience and needed a lot more guidance in terms of answering the questions we had for them.
- We suggest a checklist of questions to be answered/ discussed by the students during the workshop.
- Comment cards: Write a couple sentences about what you learned or something that really interested you. This was not introduced very well in our first workshop and the comments

were weak. For the second workshop we asked the students the above statement and we received much better responses.

- We delineated from our workshop outline into more detail about the different stakeholders in the global food system. From our first workshop we found that the students had a hard time understanding this concept and therefore had difficulties with the apple assignment. This was solved by spending more time defining the stakeholders prior to the students having to use this knowledge.

Before today I thought of Food as just somethi
that keeps us going.
Now I realize how much effort it takes f
people to get the food for us.

2) Teacher Feedback

Teacher feedback was another source of results that we acquired. Below are some direct quotations from teachers that illustrates general themes that began to emerge. The full questionnaire the host teachers filled out can be found in Appendix G.

"promotion of the program is needed...teachers are busy and it would be hard to fit it into the already-full academic schedualling"

"students were engadge the whole time...the apple activity was great"

"it would be most effective if it were extended over a series of workshops incorporating a variety of different themes, rather than squeezing a variety of themes into one workshop"

"there are many links to the Ontario curriculum.. Geography is the best vehicle"

"workshop facilitators must know their stuff...teacher workshops would be helpful"

3) Personal Observations

Workshop #1
Grade 7-8 gifted class @ Westmount Public School
December 10, 2008

The time that we had to implement our workshop was from 11:55am to 12:30pm. In this time we had a lot to cover and many activities to run so we had to be well prepared in order to make sure it ran smoothly.

After introductions we put up a blank sheet of paper on the board and asked the students, what does food mean to you? This gave us a quick reference on what they already know about the issues surrounding our food system.

For the nutritional facts activity we cut out and photo copied the nutritional information and labels for many common foods purchased in grocery stores. We photocopied them so that the box colour and texture would not give away the matching pairs during the activity.

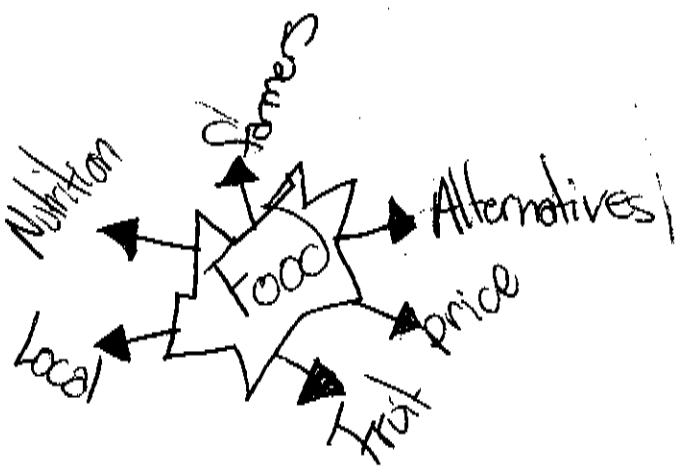
We had visual representation projected on the board from a laptop of community shared agriculture, farmers markets, locally owned stores and restaurants. This catered to both visual and auditory learners and really made it clear that there are other options available other than the

common grocery store. We added the questions: what can you or your family do to support local food? And what is available and what can you do?

We added individual feedback cards instead of putting feedback on a large sheet of paper. We were originally going to redo the first activity by getting students to tell us what they thought of when we asked what food means to them. We realized that individual feedback would provide a better avenue for students to think independently about what they learned.

Activity #3 *Stop Talking About Food, You are Making me Hungry* became local smoothie making. We were not able to bake anything due to limited school resources so we decided to bring in local ingredients and blenders to make smoothies. Our ingredients were: Milk, yogurt, apples, frozen blueberries, raspberries and strawberries, mint and maple syrup to sweeten them. This was a big success and the students loved the smoothies.

These changes were included in our next workshop except for the visual representations projected on the board due to limited resources.



Workshop #2
Grade 8 class @ Westmount public school
February 10, 2009

We ran this workshop during the first two periods of the day, from 9am to 10:30 am. We arrived early to get set up and familiarize ourselves with the classroom. There was no smart board in this class so we had to draw a map of the world on the board instead of getting it from the internet. This worked very well and is a suggestion to solve the lack of map provided with the package for the workshop facilitators. As long as a small map of the world is provided it should be sufficient for the drawing of a large scale map on the board.

We also wrote down a brief description of the stakeholders in the global food system and put it up on the board on a large sheet of paper for all the students to see. This helped them for activity #2 Apples from Iran.

This workshop ran very smoothly and the small changes we made were implemented without any problems. We noticed a difference with the degree of participation with this class. The students in this class needed more leading. We found that we had to rephrase our questions a couple of times in order to get more participation and understanding from the class.

Learned the levels of global trade System.

Discussion

In general, children's diets are a nightmare. Family suppertime and garden chores are a thing of the past, being quickly replaced by microwave meals eaten in front of the television. It is, and always has been, the role of the parent to share nutritional knowledge with children, making sure that their child has the right tools to establish a healthy life. Effects of daily nutrition will determine the extent of their potential capacities be it body, soul, or spirit. (Frazier 1996, p. 240). The well being of a child should progress everyday through the stages of development, through nurturing and education.

Frazier (1996) claims that the first stage of childhood development is classified from birth to age seven. This is when they are developing their physical 'Earth self'. This development is linked with the surrounding environment and is when the child develops through healthy food decisions provided by the parents. The second stage of life is considered to be from age seven to fourteen. This is when children begin to develop reason and a sense of opinion. The years best associated with successful knowledge intake are from ages nine through twelve. Participation in cooking can be an important means of heightening interest in food and nutrition (Frazier 1996, p. 242). The results of our research project support this statement based on observation. The students have a formed opinion of what food means to them, yet they absorbed a majority of the educational material presented in the workshop. Frazier (1996) continues by

saying that the late stage of childhood is a time when children absorb relatively less information. "If good food habits have not been brought earlier, there will be little to draw upon and scant chance for improvement". This is an important concept to understand when designing food workshops directed at school aged-children. The desired target audience for popular education workshops involving food are children at the second stage of development, ages seven to fourteen. This is due to students being at an optimal age for knowledge retention. Children will retain the values taught during this age, and their patterns will resonate over and over in adult life.

We have plenty of healthy food, and enough knowledge to know that a can of pop for breakfast will not fulfill ones energy requirements. Contrary to this knowledge of healthy eating practices, epidemics such as childhood obesity and diabetes have never been higher. Traditionally it has been the role of parents to teach their children healthy values and practices of food consumption. This occurred when both, mother and father lived at home with their children (meaning: a low divorce rate and mother's stayed at home rather than working). Food was also produced at a local scale at this time. We are currently in a society with an ever-increasing divorce rate and a food system that relies on international relations. Statistics Canada (2005) reported "overall, more couples are getting a divorce...an average rate of 16% in 2003, compared to the average divorce rate in 1973 which was 5.4%". This means that there is less family support with passing down traditional knowledge. Unfortunately, the effects of divorce are found in many aspects of childhood development.

Another aspect affecting the parental role in child nourishment is the patterns of employment. In the 1950s it was the norm for most mothers to stay at home to raise their children. Since the 1950's, female employment has been on the rise with women choosing to pursue professional careers. This pattern appears to be changing now. We are starting to see a new generation of women walking away from professional jobs to stay at home with their children. Census bureau statistics show a 15 percent increase in the number of stay-at-home moms in less than 10 years (CBS, 2004). With an increase in nutritional awareness shown in organic food choices and mothers staying at home, will we see children becoming healthier? This is a great topic for future research. With health education being pivotal for child development it can be seen that the lack of traditional food practice from parents and society is the reason why children's diets are a nightmare.

The Seasoned Spoon recognizes the importance for food educational awareness. The research results presented supports the need for food education awareness in every child's life. The two graphs illustrated in Appendix G show how much students retained after our workshop. Student retention of the themes presented in the workshop along with the general observations of student interest and engagement, are both positive results supporting the need for food programming in schools. The following are recommendations to expand The Seasoned Spoon outreach program. We hope that the workshops provided are just the beginning in an effort to

teach children the importance of food awareness and to strengthen relationships with local organizations.

- Continue to develop food workshops related to the Ontario Curriculum. The expansion of the outreach program at The Seasoned Spoon should offer programs addressing specific themes over a month or two. All workshops need to include interactive activities varying in length, as well as demonstrations to show students how things work first hand. An example would be planting in a garden or a cooking class. Weekly workshops would ensure that the students retain more knowledge (goal!) by providing the opportunity for follow up, or 'homework', activities. Also, by making more of a presence within schools, it would strengthen the community relationships.

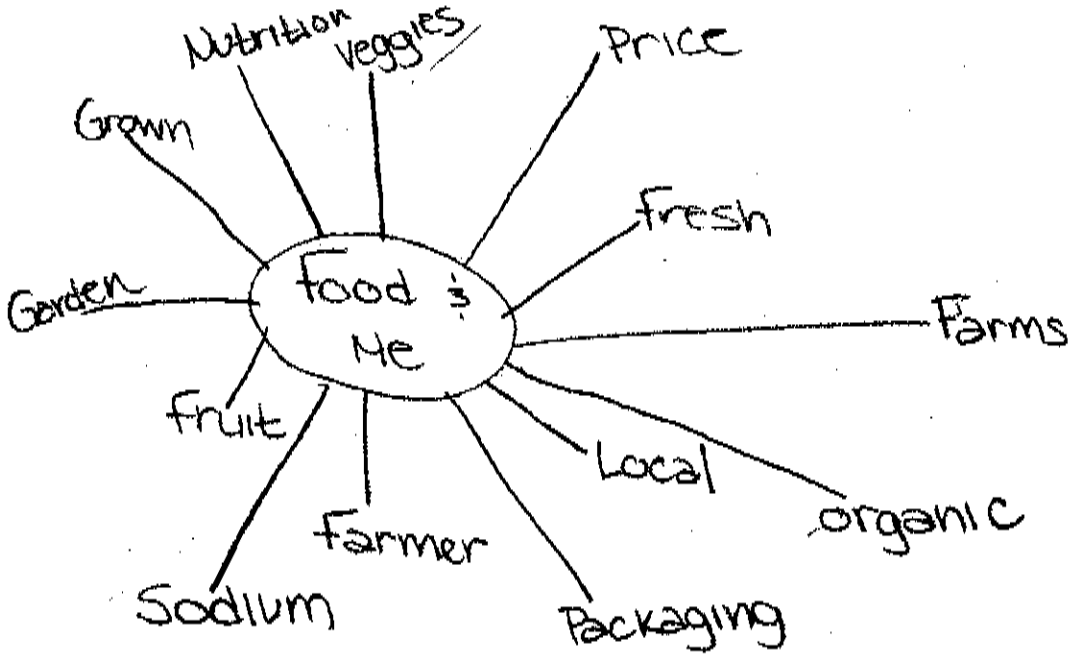
- Instead of just doing in-class interactive activities to keep the students interested, we would recommend that the Seasoned Spoon host field trips. It would give students the opportunity to travel outside of the classroom to experience practical initiatives within the local community. The Trent rooftop garden is a wonderful learning resource that students could come to visit and help maintain during its active season. The students can only learn so much by being taught in the classroom. We believe that food education has to be learnt by experimental experiential education. Another option for The Seasoned Spoon is to host cooking workshops in the café itself. They already host workshops for the general public and they have the resources needed

so why not extend this to students. A great working model of this is at the University of British Columbia where they run day trips and summer camps at the UBC Farm for school-aged children. (see the food directory section for contact information)

- The Seasoned Spoon is a not-for-profit, co-operatively run organization with limited funding. This means that finding fulltime, paid facilitators to run educational programs could potentially be a barrier. We are recommending that The Seasoned Spoon and Trent's Concurrent Education Program join together to use each other as resources. The con-ed program would be able to provide hopeful teachers with the teaching experience they need, and The Seasoned Spoon would in return have access to qualified facilitators. The con-ed students already have the certifications and police check completed, so that they are already able to work with students.

- In 1997, Santa Monica, California was the first region to establish a Farm to School program that aims to "connect schools with local farms with the objectives of serving healthy meals in school cafeterias, improving student nutrition, providing health and nutrition education opportunities, and supporting local small farmers" (Department of Education, 2008). Programs such as a Farm to School program require cooperation between all parties –school, farm, and organization –as well as a high level of organization. The Seasoned Spoon would be in the position to take the lead on this type of program because they have local contacts with food

growers. This would be a type of program for the future if The Seasoned Spoon were to expand, in size and outreach. In the mean time, a great alternative would be to help start up schoolyard gardens on local school grounds.



Limitations

The ongoing progress of this research project has been subject to some limitations that could be avoided in the future. Unfortunately, the nature and size of The Seasoned Spoon is the first limiting factor when trying to establish an outreach program. The proposed program requires increased funding and time commitment. Currently, the staff at The Seasoned Spoon are university students who experience other time commitments. Thus, money and time to implement outreach programs will be costly, especially in the start up phase. Another limitation is the legalities of having a workshop facilitator enter a classroom. We can potentially see this issue arise when The Seasoned Spoon is looking forward towards implementing this program on a larger scale next year. School boards require a police check to be obtained prior to entering the school. Thus, a potential barrier to implement workshops in schools is the need for a police check and/or ethics form for each one of the workshop facilitators. This is time consuming and has a cost associated with it. The final limiting factor we are going to list is simply making initial contact with educational organizations and schools. It can become challenging, but the opportunity is there and we feel that The Seasoned Spoon will get out of it what they put into it. (see Appendix E for the Peterborough school directory with contact information).

Final Words

The long term goal of this project was to create, reflect upon, and propose valuable feedback on workshops that we designed to teach students in the Peterborough Kawartha District School Board about food issues that affect them. We designed to have these workshops in a fashion that allows any facilitator with no prior knowledge of the subject to confidently implement them on their own, with, of coarse, background orientation of current issues. We believe that we have met the goals that we originally set out to do.

On a broader note, we would like to have these workshops implemented directly into the existing curriculum so that the information would be provided to every student across the board by their teachers.

In order to continue this general project/goal further research should be undertaken. Research should aim to determine the process needed to get the information we provide in our workshop on the local food system, and relating issues and problems, permanently into the curriculum on a large scale. It's about time!

I learned that in the 60's the farmers do not get the amount of money that they ~~should~~ should get.

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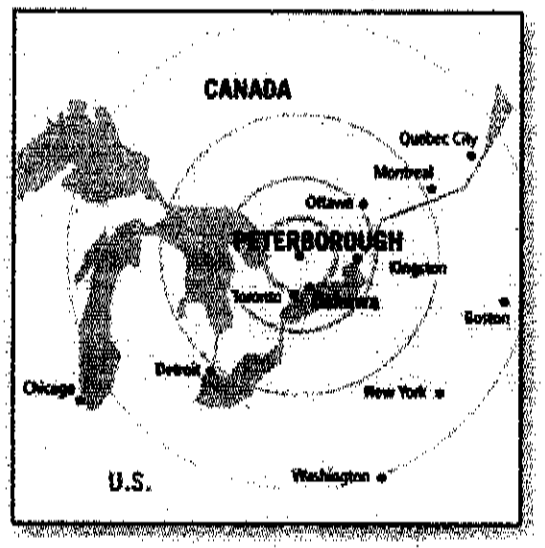
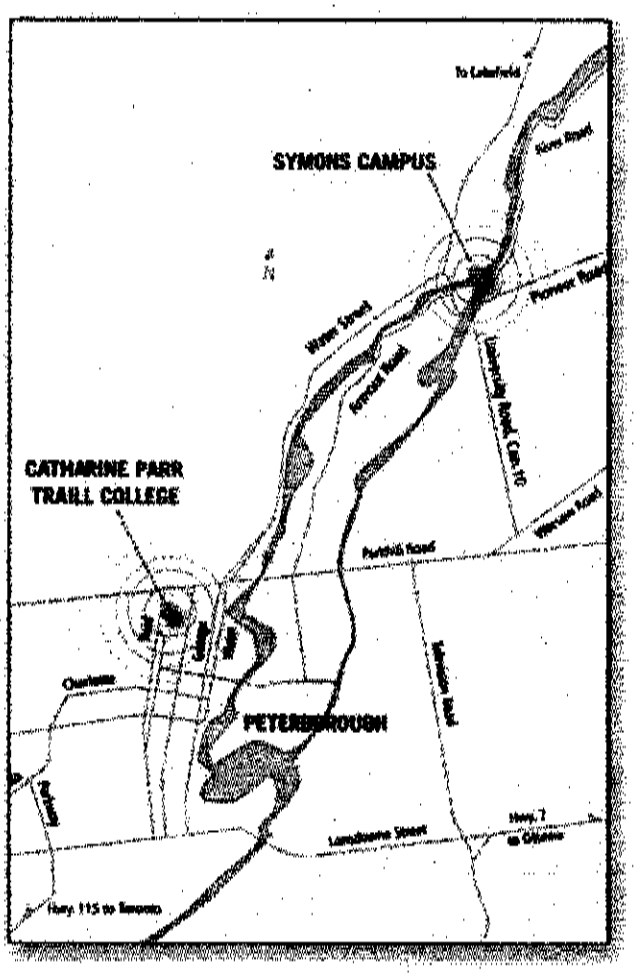
I learned about things today. things like where things come from, where they have been grown and also how they have been.

learn things about Global, local food

Appendix A - Location of The Seasoned Spoon

The study area of this research project is the local Peterborough region. It is approximately an hours drive north from Toronto and a two hours drive south from Ottawa.





The Seasoned Spoon is located on symons campus in the North end of Peterborough.

Appendix E- Food Directory

The following is a collection of resources that will be able to help The Seasoned Spoon further develop food related programming in the Peterborough community. There is a lot of information out there about food awareness and the importance of education, thus we have been very selective with the resources provided. Contact information is provided.

Ecology Park

The Ecology Park is a 5 acre community garden located near Beavermead Park in the City of Peterborough. Staff and volunteers emphasize important themes such as food, habitat, and biodiversity, through a number of different educational children's programs. They offer school group programs as well as an 'Earth Adventures' summer program at the park itself. All workshops explore a variety of Ontario curriculum-based that last approximately 2 hours.

Contact Information
Peterborough Green-Up
378 Aylmer Street North, Unit 4
Peterborough, Ontario
K9H 3V8
Phone: (705) 745-3238
Email: greenup@greenup.on.ca
http://ecologypark.greenup.on.ca/index.html

Everdale

Registered under the Ontario Corporations Act as a non-profit, educational organization, Everdale is an organic farm and an environmental learning centre for people of all ages. Its purpose is to teach sustainable living practices and operate an exemplary organic farm by offering: farm apprenticeships, weekend courses, school programs (matched to Ontario curriculum K-8) and educational tours.

Contact Information
Everdale Environmental Learning Centre
PO BOX 29
Hillsburgh, Ontario
N0B 1Z0
Phone: (519) 855-4859
Email: info@everdale.org
http://www.everdale.org

UBC Farm

It is a 24 hectare learning and research farm located on the University of British Columbia's campus in Vancouver. It is a student-run farm that aims to integrate itself within the wider community through a market garden, research opportunities, and educational outreach. They currently run a food studies curriculum program for Bachelor of Education students, with the purpose of helping educators teach about the food system within schools. UBC Farm also offers field trip opportunities for school classes that focus on where food comes from, how food is grown and social responsibilities to food production in food systems. A large part of their educational outreach program is their week long summer programs offered at the farm.

Contact Information
The University of British Columbia
2357 Main Mall
Vancouver, British Columbia
V6T 1Z4
Phone: (605) 822-5092
Email: farmteam@interchange.ubc.ca
http://www.landfood.ubc.ca/ubcfarm

The Edible Schoolyard

It is a premier example of an organic garden and kitchen classroom for an urban public school. It is located at the Martin Luther King, Jr. Middle School in Berkeley, California and has its roots with the world known Chez Panisse Foundation (founded by Alice Waters). This one-acre garden is a part of the daily school routine because the students participate in classroom activities covering all aspects of growing, harvesting, and preparing nutritious, seasonal produce. Currently, they have a small network of Edible Schoolyard affiliate programs in cities across North America.

Contact Information
The Edible Schoolyard
Martin Luther King Jr. Middle School
1781 Rose Street
Berkeley, CA 94703
Phone: (510) 558-1335
Email: info@edibleschoolyard.org
http://www.edibleschoolyard.org

Other Helpful Food-Related Resources

www.kidsgardening.org
A great resource for both teachers and students alike – food educational workshop ideas are available online.

www.ecoliteracy.org
"…dedicated to education for sustainable living" –a check-out must!

www.theorganicreport.com/index.cfm
An online resource full of step-by-step organic agricultural activities for children to do at home or at school.

http://www.growingchefs.ca
A Canadian not-for-profit organization that connects chefs with elementary school classrooms for a month long educational experience.

School Directory for the Kawartha Pine Ridge District School Board

This school directory has been specifically reproduced for the use of The Seasoned Spoon. The original copy with all schools in the Kawarthas can be accessed via http://www.kpr.edu.on.ca. Updated January 2009

ADAM SCOTT INTERMEDIATE SCHOOL 175 Langton Street Peterborough K9H 6K3	(705) 743-7373	Melanie Foulkes Paul Doig Bill Mitchell	g7-8 Fr. Imm
ARMOUR HIEGHTS PUBLIC SCHOOL 245 McFarlane Street Peterborough K9H 1K1	(705) 742-6001	Lynn Self	JK-8
EDMISON HEIGHTS PUBLIC SCHOOL 1111 Royal Drive Peterborough K9H 6P9	(705) 745-0722	Kathryn Reynolds Lorena Haley-Twiss	JK-6 Fr. Imm.
HIGHLAND HEIGHTS PUBLIC SCHOOL 430 Highland Road Peterborough K9H 5J7	(705)742-8321	Barbara Shaw	JK-8
JAMES STRATH PUBLIC SCHOOL 1175 Brealey Drive Peterborough K9J 6X4	(705) 742-8090	Peter Mangold Jeffery White	JK-8
KAWATHA HEIGHTS PUBLIC SCHOOL 11 Kawartha Heights Blvd Peterborough K9J 1N4	(705) 742-7521	Karen Brohart	JK-6
KEITH WIGHTMAN PUBLIC SCHOOL 860 St. Mary's Street Peterborough K9J 4H6	(705) 745-7775	Glen Payne	JK-6
KENNER INTERMEDIATE 633 Monaghan Road S Peterborough K9J 5J2	(705) 743-2181	JohnRingereide Tracy McCarthy	g7-8
KING GEORGE PUBLIC SCHOOL 220 Hunter Street E Peterborough K9H 1H1	(705) 745-7462	Brenda Foster	JK-6
OTONABEE VALLEY PUBLIC SCHOOL 580 River Road S. Peterborough K9J 1E7	(705) 745-0651	Paul Reid	JK-6
PRINCE OF WALES PUBLIC SCHOOL 1211 Monaghan Road S. Peterborough K9J 5L4	(705) 743-8595	Penny Hope Drew Beaton	JK-8
QUEEN ELIZABETH PUBLIC SCHOOL 830 Barnardo Avenue Peterborough K9H 5V9	(705) 742-6331	Lauric Mudd	JK-8

R.F. DOWNEY PUBLIC SCHOOL 1221 Neptune Street Peterborough K9H 5S3	(705) 742-7201	Lori Woodbeck	JK-8
ROGER NEILSON PUBLIC SCHOOL 550 Erskine Avenue Peterborough K9J 5T4	(705) 745-6456	Janet McDougall Darryl Whitney	JK-8
WESTMOUNT PUBLIC SCHOOL 1520 Sherwood Crescent Peterborough K9J 6T8	(705) 742-7871	Gary Baldwin	JK-8
ADAM SCOTT COLLEGIATE VOCATIONAL INSTITUTE 175 Langston Street Peterborough K9H 6K3	(705) 743-7373	Melanie Foulkes Paul Doig Bill Mitchell	G9-12
CRESTWOOD SECONDARY SCHOOL 1885 Sherbrooke Street W Peterborough K9J 6X4	(705) 742-9221	James Rielly Mark Astrom	G9-12
KENNER COLLEGIATE VOCATIONAL INSTITUTE 633 Monaghan Road S Peterborough K9J 5J2	(705) 743-2181	John Ringereide Tracy McCarthy Jennifer Know	G9-12
PETERBOROUGH COLLEGIATE AND VOCATIONAL SCHOOL 201 McDonnel Street Peterborough K9H 2W1	(705) 742-0425	Denise Severin Ronald MacDonald	G9-12
THOMAS A. STEWART SECONDARY SCHOOL 1009 Armour Road N Peterborough K9H 7H2	(705) 743-5230	Ann Johnston Dave Lorentz	G9-12

APPENDIX A

A Journey of Food Discovery

GRADE LEVEL
- 1-2

LENGTH
- 1.5-2.5 hours

GROUP SIZE AND LOCATION
- Any group size (material provided for up to 30 students)
- Indoor Setting

KEY CONCEPTS
- Local and non-local food choices
- Identification of food
- Environmental costs of food

OBJECTIVES

The objective is to teach students about the basic sources of food, the identification of these food sources, and to develop an understanding that food can be produced both locally and non-locally (imported).

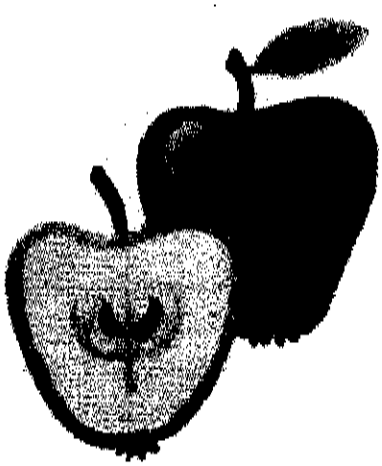
METHOD

Three interactive activities will lead the students on an adventure of food discovery. The first activity will be focused on the identification of food and determining the location of its production. The second activity will introduce the idea that environmental costs are associated with every meal, but that these costs are far larger when buying non-local food. The third will challenge students to apply their newly gained knowledge of local foods.

BACKGROUND

Our food systems are becoming increasingly global due to growth in technology and communication, which has given individuals choices that have international implications. This in turn means that the decisions we make, regarding food choices, can have overwhelmingly negative and far-reaching impacts. Hidden social and environmental costs are often associated with eating foods that have been grown in certain ways and that have traveled great distances to reach our kitchen tables. If however, we become aware of the costs associated with eating non-local foods, the decisions we make can have fewer impacts and can even be beneficial to the communities we live in.

Many people do not understand the source of their food beyond the supermarket. The truth is that food comes from a variety of sources in nature. Bringing awareness to this reality can be made by helping to distinguish between some of these sources. We then can begin to recognize various characteristics unique to foods that grow in the different regions of the world. In the end, we see the diversity of food that is derived locally. This provides an opportunity to make meaningful changes towards healthier, more environmentally and socially responsible food systems. By doing so, a link between individuals and the greater community is also established.



ONTARIO CURRICULUM LINKS

Health and Physical Education Curriculum

Grade 1 and 2: Healthy Living
- Identifies healthy eating habits and practices.

Grade 1 and 2: Fundamental Movement Skills
- Students perform basic physical activity movements.

Language Curriculum

Grade 1 and 2: Oral Communication
- Demonstrates that listening must be done to understand information and respond appropriately to the situation.
- Student also uses speaking skills to effectively communicate information orally.

Grade 1 and 2: Reading
- Demonstrates an understanding of information and ideas through reading.
- Students read and identify words.

Social Studies Curriculum

Grade 1: The Local Community
- Students identify physical and social need of residents in a community.
- Allows students to ask question to gain information about their local community.
- Uses pictures and key words to obtain and sort information about their local community.
- Demonstrates an understanding of scale in terms of local and non-local food sources.

Grade 2: Features of Communities Around the World
- Students recognize that the world is made up of different countries and regions.
- Demonstrate an understanding between location, climate, and in turn the foods that can be produced.
- Identifies similarities and differences between their communities and communities around the world.
- Allows students to sort and classify information through comparison.

Science and Technology Curriculum

Grade 1 and 2: Understanding Life Systems
- Identifies personal actions that students can take to help maintain a healthy environment.
- Students investigate the physical characteristics of plants, animals, and insects.
- Students identify what living things provide for other living things.
- Identifies positive and negative impacts that humans have on the environment.

Grade 1 and 2: Understanding Matter and Energy
- Students examine some of the ways energy is used to obtain food.

Grade 1 and 2: Understanding Earth and Space Systems
- Students assess ways in which seasonal changes have an impact on society and the environment.
- Allows students to assess the impact of human activities on the environment.

ACTIVITY PREPARATION

This program requires classroom preparation before the activities can start. Below is a description of what is needed for the three planned activities.

Activity #1

Before Class

- Obtain the book entitled *Let's Eat!* By True Kelly (1989)
  - This book is available at the Peterborough Public Library in the Children's Department.

For the Activity

- Place 4 food category posters near the four corners of the room.
- Place all of the food item cards in a draw bag.
- Draw a T-chart on the blackboard with the headings – "Local" and "Non-Local"
- *Optional Activity 1*: Prepare food slices for tasting from 4 of the food source categories (E.g. Local: cheese, apples, carrots, and cucumbers)

Activity # 2

For the Activity

- Place the pizza cut-out near the front of the room.
- Place local toppings closest to pizza.
- Place non-local toppings farthest from the pizza.
- *Optional Activity 2*: Scatter fish and bird cut-outs between the pizza and the non-local destination.

Activity # 3

Option – 1

- Obtain and place paper plate and crayons on student desks.

Option - 2

- Prepare pizza dough using recipe provided (divide dough into desired amount of portions) and cut-up ingredients for students to make the pizza.

PROCEDURE

Introduction

- Introduce yourselves and The Seasoned Spoon. Tell the students that the goal for today is to have fun with food!

- Read the *Let's Eat* book to the students to introduce the topic of food. While reading the book, emphasize the message that everybody eats (including animal, plant, and humans) and that food comes from many different places (including the farm, the sea, the garden, and the orchard).

- Initiate a discussion surrounding the topics that were covered in the book. Facilitate this discussion by asking the students' what are their favorite foods, while pointing out any obvious plant and animal sources. Draw a connection that foods come from plant and animal sources.

Activity #1 – *The Great Food Source Challenge: See How Well They Know*

- Drawing students attention to the 4 corners of the room, explain that no matter where you are in the world food can come from 4 different sources –
    1. On trees
    2. In the ground (e.g. food item grows *in ground*)
    3. Above the ground (e.g. food item grows *above the ground*, however not on a tree)
    4. From animals and insects

- Explain that each student will be given a food item. They will then be challenged to find the appropriate food category poster to place their food item underneath. Emphasize the need to look closely at the food item and ask for friends help. Once this is complete, the students should sit down.

- Begin the activity by distributing 1 food item to each student. Have the students walk around the room, discuss with other students, and then place themselves under the appropriate category.

- As the activity is taking place, filter through the room to ensure that all of the students are in the appropriate category. Prompt students to correct their choice if incorrect.

- Once each of the foods has been categorized have the class walk around the room, examining the food items that have been placed within each category. *Optional Activity 1:* At this point, food samples from each of the sources could be given to students to taste.

- Students will then be asked to grab their food item, take it to the front of the room and decide whether or not this food item can be grown locally or not. The food item cards will then be placed on the t-chart as a group to demonstrate that some foods grow locally in Peterborough, while others do not.

- Wrap up this activity by correcting the misplaced food items using the "Locally and Non-Locally Produced Foods and Their Sources" resource provided. While doing so, mentioned why some foods can grow locally and others can not (e.g. climate). Emphasize that many foods can grow locally in Peterborough.

Activity # 2 - *Pizza of the World*

- By now students understand what types of places food comes from and that some foods grow locally while others grow far away. The present activity will expand on the idea that food comes to our kitchen from all over the world by having students shop for local and non-local (exotic) pizza toppings in the classroom.

- The activity will also introduce the concept of environmental cost through the expenditure of energy by having student 'drive', 'fly', or 'boat' to each location while cashing in energy tokens along the way.

- Gather the students in a circle around the large pizza board. Introduce the activity by stating something along the lines of - "Now we will be making a pizza - not a real pizza, but a very special pizza! This is because we will be grocery shopping all over the world for the ingredients!"

- Read the shopping list to the students, while showing them the items that will be purchased:
  1. Pineapple
  2. Tomato
  3. Mushroom
  4. Green Pepper
  5. Olive
  6. Hot Pepper

  Remind the students that not all of these foods can grow locally in Peterborough. So, the student will need to travel far distance to get some of the toppings.

- Prompt students for a list of modes of transportation needed to transport food (car, truck, plane, train, boat). Introduce the idea of energy/fuel (e.g. ask students where a car needs to go ever so often in order to keep running?). Connect the concept of a car needing fuel to run with all other modes of transportation (How does an airplane get off the ground? What makes a boat move?).

- Handout 2 energy tokens to each student, explaining that this will be their fuel for their travels.

- As a class, go on a world grocery shopping tour to retrieve all of the pizza toppings. If the item is local, the students must deliver 1 energy token in exchange for a topping. In order to obtain this topping, the student may drive – by cupping their hands on steering wheel and saying "Vroom, Vroom!". If the item is non-local, the students must deliver 2 energy tokens in exchange for their topping. In order to obtain their topping, the student can fly – by stretching their arms on either side of themselves, or can travel across the ocean by boat – by either swimming or rowing.

- At each destination, 5 different students (or any predetermined number of students) will be responsible for cashing in their energy tokens before they can each obtain 1 topping (5 students, 1 toppings each/trip). The class must then travel to and from the destination together, coming back to the pizza in between trips. By the end of the activity, every student will have one topping. Depending on whether the food came from a local or non-local destination, some students (the local shoppers) will also have 1 energy token left.

- Together the students can now place their food item on the pizza to create an appealing meal from a variety of food sources and locations.

- *Optional:* Every time a long distance is travelled, students that run into fish or birds must take it with them. This can be done as a way of demonstrating that travelling far to get your food results in pollution and environmental degradation that is harmful to wildlife.

- Wrap up the activity by highlighting that students who bought locally have energy left-over, while the students who bought from far away had to use up all of their tokens.

Activity #3 - *Making a Local Pizza*

Option 1 -

- Using paper plates and crayons have students draw a pizza.
- Ask students to consider the different foods that they have learned about and ways to make this pizza better for the environment by using ingredients that are produced locally such as green peppers, mushrooms, tomatoes, pepperoni, cheese, and onions.

Option 2 -

- Using the local pizza recipe provided, prepare dough and toppings using locally produced foods. Have the students prepare the local pizza by adding the ingredients to the dough.
- Cook and enjoy the locally produced meal!

Conclusion

- Ask the students what the 4 sources of food were as previously presented, revisiting the idea that some food grows locally while other food does not. Ask the student what their favourite local food is now that they can make the differentiation between local and non-local food items.

FOLLOW UP ACTIVITY

Planting and harvesting food in the classroom is a great follow up activity. This could be achieved by planting seeds in small containers, placing them beside the window, and watching the food grow!

ADDITIONAL RESOURCES

Kawartha Choice Farm Fresh
Kawartha Choice is a grassroots, volunteer initiative that supports local farmers by promoting the wide variety of agricultural products grown in the Kawartha Region. This source serves as a great resource for determining what is grown locally as well as where to buy these locally produced foods.
Website: www.kawarthachoice.com

Sustainable Table: Serving Up Healthy Food Choices
This resource provides additional background information regarding food miles and the reasons to buy locally produced foods.
Website: www.sustainabletable.org/issues/buylocal/

The Edible Schoolyard: Martin Luther King Jr. Middle School
The Edible Schoolyard is an urban public school with a one-acre organic garden and kitchen classroom. At this public school, "students learn to grow, harvest, and prepare nutritious meals using seasonal produce", while also "developing a deep understanding and appreciation of how nature sustains life".
Website: www.edibleschoolyard.org/homepage.html

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- Ask the students what the 4 sources of food were as previously presented, revisiting the idea that some food grows locally while other food does not. Ask the student what their favourite local food is now that they can make the differentiation between local and non-local food items.

FOLLOW UP ACTIVITY

Planting and harvesting food in the classroom is a great follow up activity. This could be achieved by planting seeds in small containers, placing them beside the window, and watching the food grow!

ADDITIONAL RESOURCES

Kawartha Choice Farm Fresh
Kawartha Choice is a grassroots, volunteer initiative that supports local farmers by promoting the wide variety of agricultural products grown in the Kawartha Region. This source serves as a great resource for determining what is grown locally as well as where to buy these locally produced foods.
Website: www.kawarthachoice.com

Sustainable Table: Serving Up Healthy Food Choices
This resource provides additional background information regarding food miles and the reasons to buy locally produced foods.
Website: www.sustainabletable.org/issues/buylocal/

The Edible Schoolyard: Martin Luther King Jr. Middle School
The Edible Schoolyard is an urban public school with a one-acre organic garden and kitchen classroom. At this public school, "students learn to grow, harvest, and prepare nutritious meals using seasonal produce", while also "developing a deep understanding and appreciation of how nature sustains life".
Website: www.edibleschoolyard.org/homepage.html

APPENDIX B

Breakfast: A Global Affair

GRADE LEVEL
- 7-8

LENGTH
- 1.5 hours

GROUP SIZE AND SETTING
- Any group size
- Indoor setting

KEY CONCEPTS
- Local food systems versus global food systems
- Climate
- The role of stakeholders within food chains
- Importance of food labels
- The role if economic and transportation systems

OBJECTIVES

Students will understand **where their food comes from** and how their choices affect relationships within the food system.

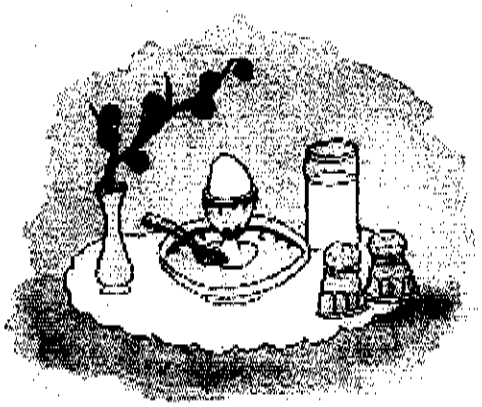
METHOD

An interactive activity will teach students to recognize the origin of particular foods and why that environment enables food to grow there. The final activity will ask the students to work together to make something yummy!

BACKGROUND

As a Western culture we seem to have arrived at a place where whatever native wisdom we may once had about our eating practices has been replaced with confusion and efficiency. Defining features of the Western diet is fast, easy and cheap food. How does our decision to eat fast, easy and cheap food affect the relationships within the food system? Human survival depends on the consumption of food; therefore the complex relationships between food, health, environment and culture dictate who we are as a human society. Putting Costa Rican Bananas on cereal not only tastes good but presents a case study that deals with a variety of social, economic and environmental issues (i.e. transportation network of a banana). A wonderful alternative to the global food system is the local food choices that surround us.

Local food choices have a set of their own relationships; mostly beneficial ones. Socially, it requires greater interaction between community members (farmers and the consumers) to acquire the food. Environmentally, there are less harmful emissions released into the air during the transportation of the food and there tends to be less packaging when transporting the food. And economically, local food strengthens the local economy because money is exchanged directly between the consumer and the producer. Local food tends to be grown on a smaller, more sustainable scale, which means that pesticide, fertilizer, and Genetically Modified Organisms(GMO) would not be as prevalent compared to conventional farming. Eating locally is a way to engage students and teachers with their local environment and to gradually become less dependent on the global food system.



ONTARIO CURRICULUM LINKS

Geography

Grade 7: Patterns in Physical Geography, The Themes of Geographic interaction, and Natural Resources

- Explain how natural vegetation patterns result from the interaction of several factors, including climate, landforms, soil types, and competition for available nutrients.
- Identify the characteristics of the three types of agriculture- subsistence, commercial and specialized- and the different climate, topography, and the soul conditions that are favorable to each type.
- Explain the geographic concept of interaction
- Explain the geographic concept of movement of goods.
- Explain the concept of sustainable development and its implications for the health of the environment.
- Describe ways in which technology has affected our use of natural resources

Grade 8: Economic systems

- Outline the fundamental question that all economic systems must answer: what goods and produced; how they are produced; by whom they are produced; and how they are distributed.

Health and Physical Education

Grade 7 and 8: Healthy living

- Describe how our body image influences our food choices
- Identify factors affecting healthy body weight
- Adopt personal food plans, based on nutritional needs and personal goals, to improve or maintain their eating practices.

Science and Technology

Grade 7: Understanding life systems and Interactions in the Environment

- Assess the impact of selected technologies on the environment (pesticides, GMO's)
- Use appropriate science and technology vocabulary (ex. sustainability)
- Use a variety of forms to communicate with different audiences and for a variety of purposes.

Grade 8: Understanding Structures and Mechanisms

- Assess the impact on individuals, society, and the environment of alternative ways of meeting needs that are currently met by existing systems, taking different points of view into consideration.
- Identify the purpose, inputs, outputs of various systems
- Identify the various processes and components of various systems

ACTIVITY PREPARATION

This program requires classroom preparation before the activities can start. Below is a description of what is needed for the three planned activities.

Activity #1

For the Activity

- Hang a large map of the world at the front of the classroom. Other ideas for a map: draw a general map of the continents on the blackboard or obtain a transparent copy of a world map and put in on an overhead projector to make it bigger.
- Collect popular food products (i.e. Fruit Loops, Chocolate Bars, and Juice Boxes) and their nutritional facts/ingredients. For a class of 30 students, 15 food products with nutritional facts will be needed.

Activity # 2

Before the activity

- Make two copies of the apple cut out for every participant (apple cut out provided)
- *Optional activity:* give the students apple slices from a local farm just for fun and taste!

Activity # 3

Before the activity

- Ask the teacher to tell the students to bring in their "most favorite recipe" for the day the program is run. It can be anything from a meal, to a desert.
- Decide what ahead of time what the class is making and prepare the ingredients. Examples of some recipes are provided. Be aware of the facilities the school offers (i.e. oven, no oven). Bake time should be approximately 15minutes.

For the activity

- Kids must wash their hands!
- Set up two stations: (1) cooking station and (2) 'recipe revamping' station

PROCEDURE

Introduction

- Introduce yourselves and The Seasoned Spoon. Tell the students that the goal for today is to have fun with food!

- Explain to the class that the purpose of the lesson is to learn about local food choices and their relationships with the surrounding environment. Ask the class what their favorite foods are to get a general idea of their appetite.

Activity #1: *What did you have for breakfast?*

- Direct class attention to the map of the world. Begin by asking students to write what they had for breakfast on the piece of paper provided. Call out common breakfast food such as, cereal, peanut butter, oranges, eggs, and have the students who wrote that food on their piece of paper to come up and place it on the map where they think it came from. Let the students place the food where they think it originated from. Don't forget to break down the ingredients in the food (i.e. cereal =wheat, sugar, milk).

- Discuss some of the food origins of breakfast foods (see Breakfast Foods in resource package). Ask the students if anyone wants to change the placement of their breakfast on the map. Anyone who wants to, have them come up to the front to do so. This is the time to discuss why certain foods grow in specific conditions and environments. Draw relationships between climate and food production. How does the cold climate inhibit food production in certain regions?

- Discuss with students why foods like, oranges, sugar and bananas cannot be grown in Canada. The reason is due to the long, cold winters. These types of food need constant heat and sunlight. Ask the students what types of food we can use to replace exotic and non-local choices. Bring in local apples, pears, strawberries, blueberries, grapes, cantaloupe, oatmeal, eggs etc. (obviously dependent on growing seasons). Explain to the students that food choices in Canada have limited growing seasons –certain foods are not available at certain times of the year.

- Tell the students that the location of where we live does not affect our food choices because we can get the food we want at anytime due the global food system. Food is produced in factories on conveyor belts. Ask the students if they provide any examples of a food that is produced in a factory.

- Tell the students that we are going to do an activity that will require them to read nutritional facts and ingredient lists of a specific food product. All of these products were produced in a factory. All students must help one another match the food product (i.e. Fruit Loops™) with the matching nutritional information/ingredient list. Go over the important characteristics of nutritional information:
    - High fat content
    - Sodium is used to preserve food –shelf life
    - Carbohydrates are things like, pasta and bread
    - Nuts have a high fat content, but GOOD fat!
    - Ingredients are listed from the most used to the less used
    - Keep your eyes open for the "Made in" label

- Hand out nutritional information cards and food products. Example, 30 students in the class: 15 common food products are given to half of the class and the other half of the class gets the matching nutritional information/ingredients to those common food productions. Students holding the nutritional information must figure out what food product they are

holding and find their match. Give the students a hand if they ask for it. Should not take longer than 10minutes to find matching pairs.

- Once every student has found their match, ask the pairings to tell the class (1) what food product they are, and (2) what are some key ingredients in that food product (what makes that food different from the others). Ask the students if they can pin point one region where all of the ingredients come from. They should not be able to do that because factory produced food gets its ingredients from all over (i.e. sugar from Brazil, wheat from Western Canada, chocolate from West Africa).

Activity #2 – *Apple from Iran: so what?*

- Discuss social, economic, and environmental impacts of the global food system and the consequences of factory production of food. It causes a disconnect between the farmer and the consumer. The global food system is mass produced without much care to local communities. Economic- It costs a lot to ship food overseas and therefore the people working on the farm are not being paid very much because costs have to be cut from somewhere so that the food is still affordable to the consumer. Environmental- Pesticides and the energy used to strengthen crops and ship them overseas wreaks havoc on our environment. Consider the packaging the food requires and its effects on landfill sights and animals.

- Knowing some characteristics of the global food system, discuss the difference between a 'local food system' and the 'global food system'. What are some characteristics of a local food system? Locally grown food supports your community. Local produce is often better for you because it is fresher and has less pesticides and chemicals on it because the food does not need to be protected for an extended trip from the farm in other countries, often overseas, all the way to your grocery store. Consumers and producers often develop a relationship. Ask the students whether their parents (or them) buy their food locally or globally.

- Introduce the idea of a stakeholder. It is considered to be "any person, group or organisation with an interest in, or who may be affected by, the activities of another organisation. Tell the students we are going to brainstorm who the stakeholders are in each food system. Who are the stakeholders in the global food system and what are their responsibilities? Get a student to write them on the blackboard for future reference.

Farmers - Grow food under various regulations from the company that they are selling to.

Transporters - Transports products from the farmer to the warehouses of the wholesaler.

Wholesalers - Owns a chain of grocery stores and acts as the middle man between the farmer and grocery store (i.e. Loblaws)

Retailers - This refers to the grocery store where the consumer goes to buy their food (i.e. Sobeys)

Consumers - People who purchase food for consumption.

- In contrast, ask the students who are the stakeholders in the local food system? The food chain is shortened, thus the farmer and consumer are the main stakeholders in the local food system. In some cases, transportation might be needed depending on where the food was purchased. Even though there still may be transportation costs associated with locally grown food there is an important comparison to be made in terms of the degree of transportation required.

- Handout two apple cut outs to each student (see Apple Cut out in the resource package). Tell the students that they are the consumer of the apple and that they just paid a dollar for each apple. One apple traveled from Iran (2nd largest apple producing country) and the other apple traveled from a local farm.

- Ask the students to section off on the Iranian apple how much of that dollar each stakeholder got. Quickly, get the students to share their answers with the class. After, tell the students the actual answer:

Farmer = 5cents
Transportation = 44cents
Wholesaler = 17cents
Retailer = 34cents

- Ask the students to repeat the exercise with the apple from a local farm. Quickly, get the students to share their answers with the class. After, tell the students the actual answer: 90 cents to the farmer and 10 cents goes to the person or organization that brings the apple from the farmer to the consumer (usually someone picks up apples and brings them to the farmers market).

- Now that students know the effects of local food systems versus global food systems, discuss how individuals actually buy local food. Local food options: Community Shared Agriculture (CSA) programs, farmers market, community and personal gardens, locally owned butcher/baker (i.e. Sticklings) and independent restaurants. Give a brief description of each.

Activity #3: ***Stop Talking about Food, You are making Me Hungry!***

- Tell the students that it is time to cook! And that we are making a Seasoned Spoon special recipe: what recipe we are following, what foods we are using and the rules when cooking. Have all students go to the washroom to wash their hands. Split the class in half with each leader taking half the class. Both groups are cooking the same thing! Divide the tasks equally. If one person does not want to cook, have him or her read out the recipe. Once both groups are finished put the final product in the oven.

- While waiting for the food to bake, inform the students that it is time to revamp their favourite recipes to be more 'local food friendly'. Explain to the students that their job is to recreate the recipe using only locally grown ingredients. Get creative! Fill in the recipe handout with guidance from program leaders and teacher. Tell the students to write a paragraph explaining what changes they made to the recipe and why they made the changes they did?

- Serve food. While enjoying the food, have the students share their recipe and what changes they made.

Recipe Assignment

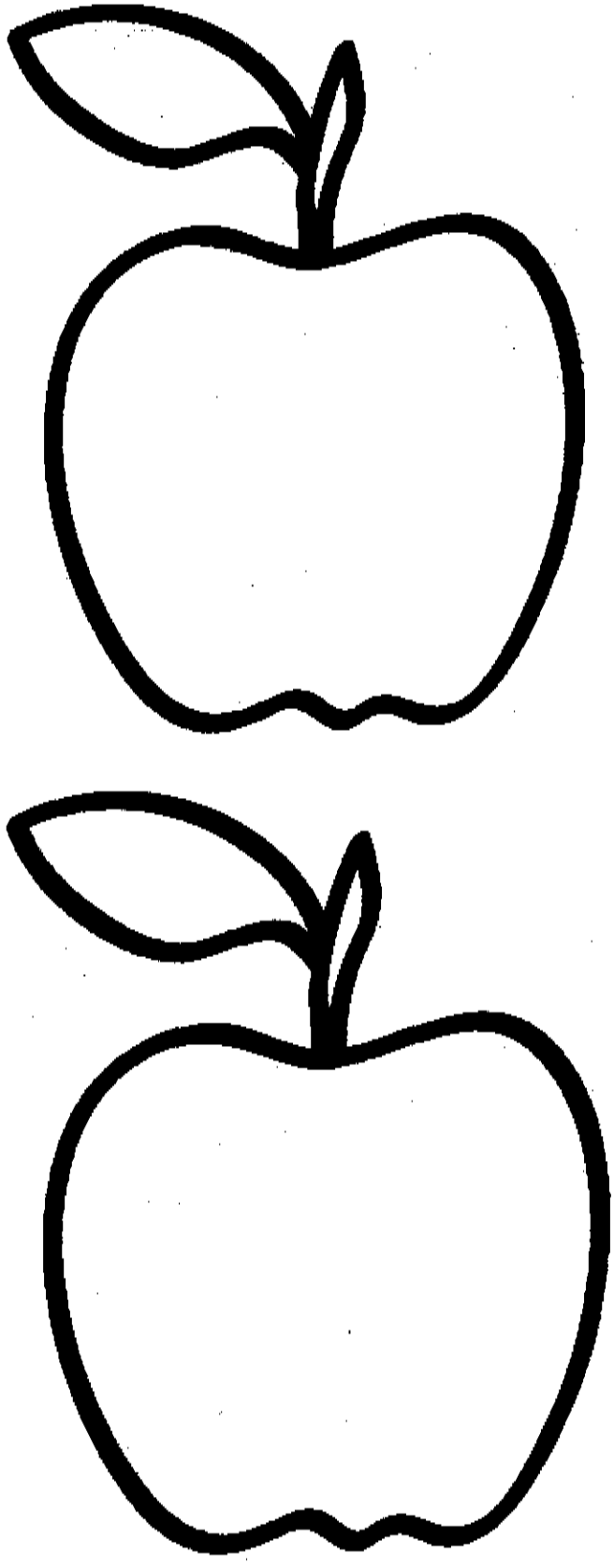
-Recreate a recipe using only locally grown ingredients.
- Describe what changes you made to the recipe and where you will purchase all of the ingredients from

Title:

Ingredients + where you will buy them:

Procedure (step by step instructions so that anyone can recreate your recipe):

Changes you made or anything unique about your recipe:



APPENDIX C

Food Fight! A Debate Activity

GRADE LEVEL
- 9-12

LENGTH
- 1hour

GROUP SIZE AND SETTING
- Small to medium group size to encourage participation
- Indoor or outdoor setting

KEY CONCEPTS
- Local food systems versus global food systems
- Factory farming and organic farming
- The role of ecological agriculture

OBJECTIVES

Students will understand the difficult choices that they must make as consumers in terms of how to choose which food to purchase based on their understanding of economic, environmental, and social issues surrounding where and how food is produced.

METHODS

A role-playing activity in which students will be provided with some preliminary research materials and asked to conduct further research on their own with respect to the merits of choosing locally-grown food versus imported, and organic food versus conventionally produced food. They will then engage in a teacher-facilitated debate in which they must argue whether it is better to purchase conventional, locally-grown food, imported or organic food based on the merits of their opinions and research.

BACKGROUND

People as consumers are faced with a number of difficult decisions to make every day: What and how much to buy? Which brands to support? Which stores to shop in? How much to spend? And do ethical considerations factor into our decision making? In grocery stores we have seen a verifiable revolution in how foods are being marketed in terms of their healthiness and nutrition, their environmental impacts, and their social impacts as well. Labels have popped up such as "Fair Trade", "Organic", "Pesticide-Free", "Product of Ontario," and perhaps in the future, "Genetically Modified Organism (GMO) Free".

Amidst this mire of labels, what do they all mean? Secondary school students will need to be educated about distinctions between locally-grown vs. imported foods, and organically farmed vs. conventionally farmed foods if they are to be informed consumers in the future. Most importantly, they will need to be able to develop a capacity for judgment and be able to exercise that judgment based on their own intuitions and as well as available information.

The focus of this activity plan is on examining the benefits and consequences of buying local vs. imported foods and organic vs. conventional foods. This activity is intended to be versatile, allowing for the ability to adapt it according to the audience being addressed. For example, for grades nine and ten students, the teacher/facilitator may choose to focus on one of either comparing the reasons for

purchasing different categories of food. Students would do this by comparing the benefits and problems associated with organic and conventional agriculture; or consuming imported foods compared to locally produced foods.

The main arguments for buying local are that by doing so, one helps to support the local community and region where the consumer lives. Thereby buying local supports the local economy meaning that money spent stays within the region as opposed to being shipped off to a far away location. Buying local food encourages local businesses to continue operating in the face of intense competition from firms abroad which often have the benefits of providing lower prices due to more relaxed environmental and worker health regulations.

There are ethical issues with purchasing foods grown halfway across the world in developing nations, where farmers are often exploited by agri-food corporations. The Fair Trade movement has sought to alleviate this problem by trying to ensure a fair price is paid for goods produced by the farmers in these exploited regions, but one way to avoid this altogether is to purchase food grown locally. However, a downside to purchasing locally is that in northern countries such as Canada with long winters, the growing season is not particularly long. So in order to get fresh fruits and vegetables all year-round especially during the winter months, consumers must make the decision either to limit the varieties of foods they consume to that which is produced seasonally in the region, or to eat imported foods from abroad.

There is currently insufficient scientific evidence to say conclusively whether either conventionally-grown or organic foods are actually more nutritious than one another. The main arguments for buying organic foods are that organic farming uses less if not zero pesticides, chemical fertilizers, and fewer fossil fuels in the case of smaller farms and no-till operations which is better for the environment and for human health. Organic farming tends to be done on a smaller, more labour-intensive scale than conventional farming which makes it more environmentally sustainable. Organic farming practices such as crop-rotation and planting multiple crops on the same land instead of conventional large-scale monoculture helps to suppress weeds, pests, and losses in soil fertility by avoiding excessive soil disturbance and pesticide and herbicide use. However because of stringent government regulations and certification conditions, organic farming tends to be more labour-intensive and therefore produces smaller yields and higher food costs than conventional farming.

Also there have been some concerns about the use of animal manures as fertilizers because of the risk of health problems arising from contamination by bacteria such as E. coli in wells contaminated by agricultural run-off in Walkerton Ontario. Arguably though, the practice of composting on organic farms helps to mitigate this issue. Conventional agriculture produces higher yields in terms of food quantity and has become the norm in Canada, but consequently requires large amounts of chemical inputs such as fertilizers, as well as pesticides and herbicides to fight off pests and weeds.

In light of the conflicting information and values at play, we as consumers still need to decide for ourselves which food we should buy. A good way to balance the different sides is to hold a debate and let the merits of the arguments help us to decide. This is exactly what the debate activity is intended to achieve for secondary school students, as well as by helping them to develop critical thinking and communication skills.

ONTARIO CURRICULM LINKS

**It is important to note that this is a short summery of the curriculum links to grades 9 through 12 as there are to many links to list.

Geography

Grade 9: Systems and Structures, and Interactions and Interdependence – trade/exchanges (food production & imports), farming methods as human and environmental processes

Food and Nutrition

Grade 9 and 10: Informed food choices, Canadian food heritage, food industries, and global food issues.

Canadian and World Issues

Grade 12: Human-Environment interactions, global relationships with respect to agricultural practices, and local food and globalization movements.

Food and Nutrition Sciences
Grade 12: Factors affecting food choices, hunger and food security.

PROCEDURE

Note: One of the skills that developed through debate activities is that students need to learn to listen to different and often opposing points of view while being respectful of the persons speaking. The intent is to provide an avenue by which students may learn tolerance in the recognition that disagreement is not a justification for disrespectful or demeaning behavior in a civil society. In order to encourage civil behavior, only one student may speak at a time during the debate. A tool, which helps to indicate whose turn it is to speak, is the use of an apple or other object. The optimal context of the debate would be for it to take place in a classroom (or other room) setting, with the facilitator having access to a desk with the two teams facing each other on either side of the facilitator (left hand, right hand). The facilitator would place the apple on the side of the facilitator's desk corresponding to the side of the room of the team whose turn it is to speak. For the purposes of this exercise, the tool is called the "Apple Rule".

- Explain that the students will learn about making choices as consumers with respect to the differences between local food, imported food, and organic and conventional agriculture.

- Using a sheet of chart paper or a blackboard, allow the students to get a feel for what they will be dealing with by giving them an argument statement (see below #4) and asking them some of the following questions:

Introduction

- Food differs in two fundamental ways:
  1) Where it is grown or produced: Which country produces the food? What kind of climates do different countries have? How does where food is grown impact the availability of certain foods? How does the climate in a country like Argentina differ in its ability to produce food from the climate in Canada? Why is imported food sometimes cheaper than food grown in Canada?
  2) How it is grown or produced: What is "organic" food? What are the differences between "organic" food and "conventional" food? What are the benefits and risks of consuming organic or conventional foods?

- Explain to the students that they are to participate in a debate activity. They will be split up into two groups, each taking one side of an issue to be assigned to them. The students are, with the help of the research material package to be given to each group, to research information to help support their side of the argument in preparation for the debate.

Debate Topic Groups

Note: It is recommended that the simpler issue topics found in groupings 1 and 2 should be used for students in grades 9 and 10. If the teacher considers it appropriate to do so, it is suggested that the more complex compound-issue topics found in grouping 3 might be used for a grade 12 level course to add further challenge if desired.

Grouping 1

Students should be assigned to one of two groups:

a. Argument 1: "Food that is organically produced is better than conventionally produced food because..."
   - OR -
b. Argument 2 (Counter-argument to Argument 1): "Food that is conventionally produced is better than organically produced food because..."

Grouping 2

Students should be assigned to one of two groups:

a. Argument 1: "We ought to eat food that is sourced locally 100% of the time."
   - OR -
b. Argument 2 (Counter-argument to Argument 1): "We should not limit ourselves to only local food, it is a good thing to import foods from around the world"

Grouping 3

Students should be assigned to one of two groups:

a. Argument 1: "It is preferable to eat food that is conventionally produced, but is also grown locally"
   - OR -
b. Argument 2 (Counter-argument to Argument 1): "It is preferable to eat food that is organically produced, and it does not matter where it was grown (includes the idea of importing food from abroad)"

- One week in advance, hand out the reading package to the students. This package should include the three charts "Industrialist & Environmentalist Visions for Agriculture", "Conventional vs. Organic Farming", and "Organic and Conventional Food – Which is Better?" along with two readings "Eating Better Than Organic" by John Cloud, and "Local or Organic" by Mindy Pennybacker, as well as the recommended resource list.

- The suggested debate format is a modified version of the International Debate Education Association's Middle School Format. This format is given below:

  a. The team supporting the resolution in middle school debate is referred to as the proposition. In this case, it would be the team supporting Argument 1. The team negating the resolution is referred to as the opposition. In this case, the opposition would be the team supporting Argument 2. The proposition team makes a case for the motion for debate (i.e. their thesis). The opposition opposes the case made by the proposition team. Each team will begin with an opening statement outlining their main arguments in support of their position.

  b. This is to be followed by a point-by-point exposition of those arguments with an opportunity to rebut by the opposition. Once each team has made the points they wished to make and the opposition has had opportunity for counter-argument, then each team is to give a closing statement. The closing statement is intended to make a final appeal to the moderator/judge outlining why each team should be considered the winner of the debate.

  c. It is recommended that judgment might be based upon the formulation of the arguments made and how well students are able to argue for their side. The recommended scoring method is to use a vegetable of some sort, such as a potato for each team. This is in part to maintain the emphasis on the fact that the topic relates to food. Whenever a strong point is made, a push-pin would be placed into the potato of the opposing team, and if that point is refuted effectively, that push-pin would be removed.

  d. The team with the fewest push-pins in their potato would therefore be considered to have won the debate.

  e. Some potential criteria to keep in mind while judging the outcome of the debate includes the literacy of the students; individual students' discomfort with public speaking, and relative unfamiliarity with the subject. Two goals of this exercise are, in addition to teaching students about the differences in food production methods and origins, to help foster critical thinking skills and facilitate presentation skills in a collegial environment.

FOLLOW UP ACTIVITY

- What do you feel you have learned after doing this exercise?
- Off the top of your heads, what kinds of foods do you like to eat?
- What do you think should matter more – how far and how long food traveled to get to you (i.e. freshness; local/imported) or whether or not the food has some pesticide residues on it or is genetically modified?
- Since we live in Peterborough, and we can have some cold winters, this means that not all types of foods can be grown locally or are not available all year round – would you consider changing your diet and giving up some of the foods you love in order to try to eat more locally?
- Suppose you were to go grocery shopping tomorrow, knowing what you do now, would you do anything differently than you would have before?

APPENDIX F

Questionnaire for host teacher

- Are there other curriculum links other than the ones proposed? How can opportunities to implement this workshop be broadened?

- Are there changes that would make it more versatile for the workshop facilitator?

- How is the structure and flow of the workshop? Are there any suggestions for activity rearrangement?

- Is the information accessible to all students and learning styles?

- What is the demand for programs such as this? Can you foresee an increased demand?

- How did the students react to the information presented?

- Could the knowledge shared through this workshop be adopted by teachers to allow further programs to be run by teachers rather than facilitators? Would any changes need to be made to distribute the package to teachers to teach instead of an outside facilitator?

- General performance of facilitators? Strengths? Weaknesses?

Questionnaire for host teacher

- Are there other curriculum links other than the ones proposed? How can opportunities to implement this workshop be broadened?
  I enjoyed that the program meets cross curricular expectations.

- Are there changes that would make it more versatile for the workshop facilitator?
  Have more group discussions.
  Think - pair - share.

- How is the structure and flow of the workshop? Are there any suggestions for activity rearrangement?
  Good transitions. lots of activites that were diverse and informative
  ~~When having in class activity~~

- Is the information accessible to all students and learning styles?
  Great appeal to the multiple intelligences. I would ask more Blooms questions to students and have them answer outloud. This picked up as the presentation continued.

- What is the demand for programs such as this? Can you foresee an increased demand?
  I think it is an important topic. ~~Fee~~ Labelling is said to become stricter on what is labelled as made in Ontario.

- How did the students react to the information presented?
  The students got really engaged in the apple activity results.
  The examples about the chickens really got the students thinking.

- Could the knowledge shared through this workshop be adopted by teachers to allow further programs to be run by teachers rather than facilitators? Would any changes need to be made to distribute the package to teachers to teach instead of an outside facilitator?
  I think this would be helpful if teachers went to a workshop first.

- General performance of facilitators? Strengths? Weaknesses?
  Could hear a pin drop when discussing hormones in food.
  I really liked the Exit cards.

Questionnaire for host teacher

- Are there other curriculum links other than the ones proposed? How can opportunities to implement this workshop be broadened?

You could use the apple activity in math. Pie graph construction is gr. 8.

- Are there changes that would make it more versatile for the workshop facilitator?

If I did it myself I would do it over several lessons. Get the kids researching a bit.

- How is the structure and flow of the workshop? Are there any suggestions for activity rearrangement?

It was good.

- Is the information accessible to all students and learning styles?

Yes

- What is the demand for programs such as this? Can you foresee an increased demand?

At this point you will have to promote it. Many teachers are finding it hard to squeeze everything in as it is. Geography would be the best vehicle.

- How did the students react to the information presented?

I was hearing comments while they were waiting for the smoothies that indicated understanding. We will see how much is retained by revisiting in a week or 2.

- Could the knowledge shared through this workshop be adopted by teachers to allow further programs to be run by teachers rather than facilitators? Would any changes need to be made to distribute the package to teachers to teach instead of an outside facilitator?

Any teacher who has the Nelson Reader series could link this easily.

- General performance of facilitators? Strengths? Weaknesses?

Link the salt as a preservative to world exploration for spices - they were so impt in the 17 & 18'00s ~~because~~ for preservation International trade is <u>old</u>

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Daily Feedback Sheet – Classroom Placement

Teacher Candidate: Andrew/Jessica Lesson Subject: Food

Please ensure that the Teacher Candidate receives a copy of this form

Please provide specific comment on the following, as appropriate:
Planning, implementation, classroom management, assessment and evaluation, meeting individual pupil needs, use of technology.

Strengths:

Good mix of whole group talk & activities
Eye opening information.
Good voices

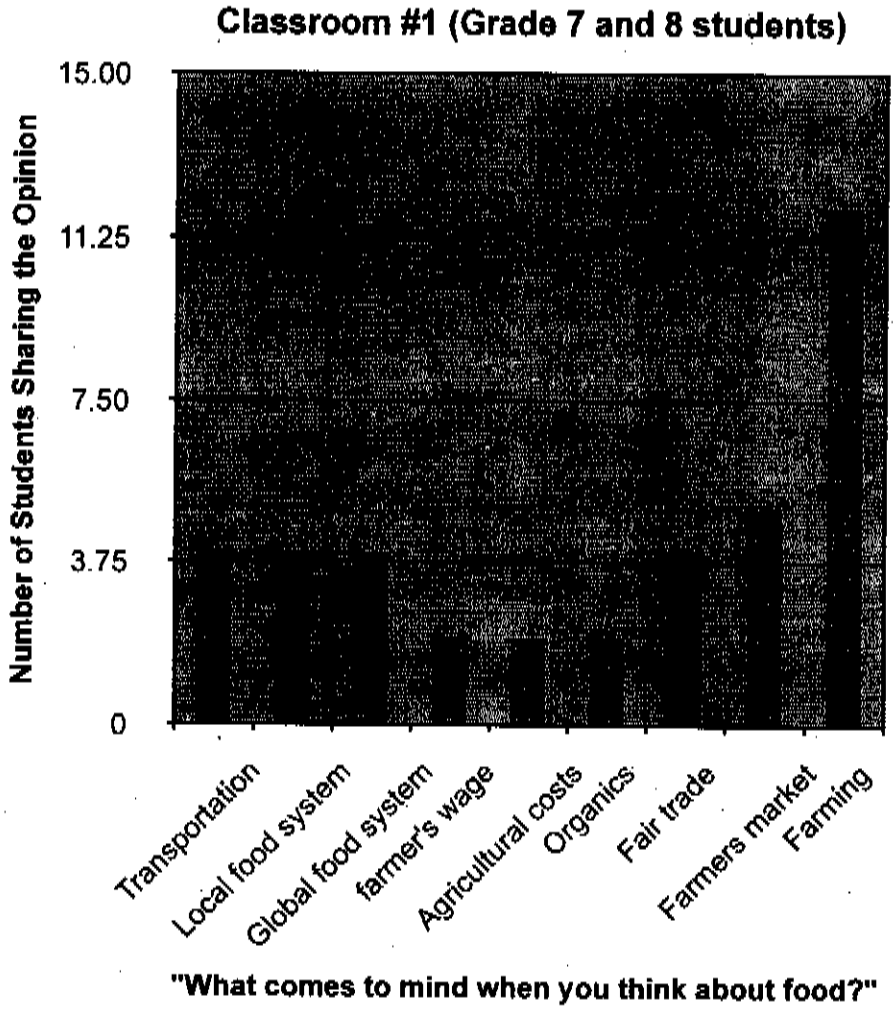
Area(s) for improvement & suggestions:

When you use an acronym like GMO - tell them what it means.

Signature of Associate Teacher: D. Elliott **Date:** Feb 10/09

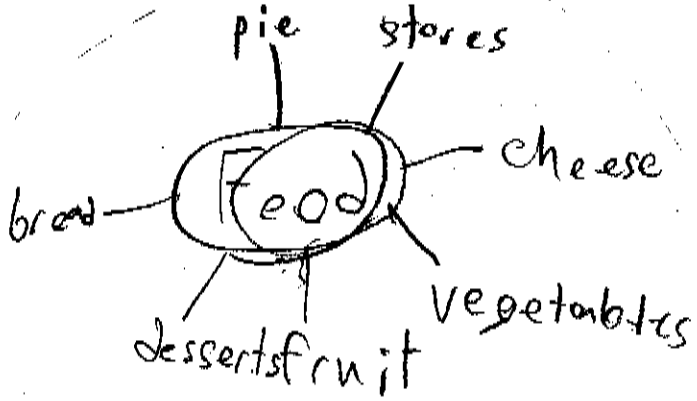
Appendix G - Student Reflection

I learned the levels of the global food system and I didn't realize how little money farmers get from there food.

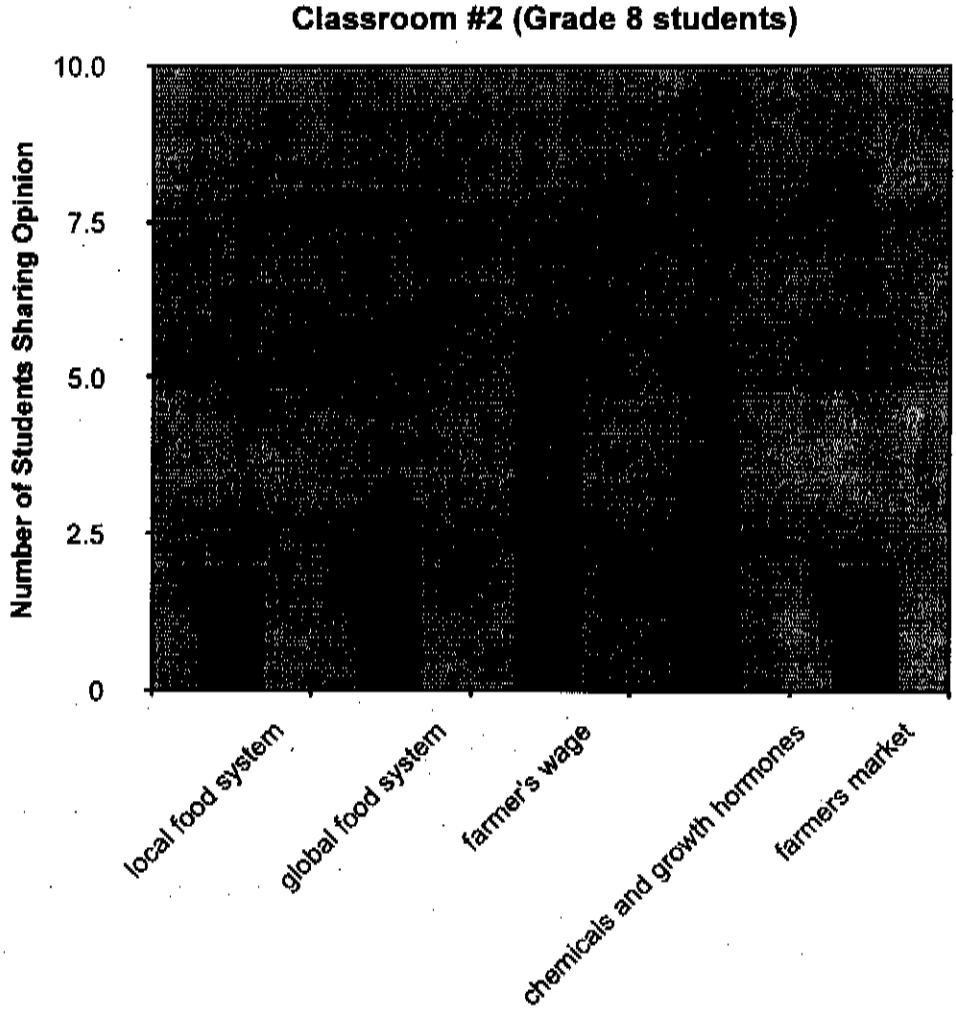


What I think of "Food" Now

capitalist
Un-fair
Free Trade
Treat my water
CSA



It's pretty bad how people would put so much Growth stuff into a chicken



I learned the dangers in foods (growth jeans, etc.) and how much global food systems hurt farmers/fishers.

I am now very interested in food and hope I can do something to help me thinking more locally.

What I learned that I didn't know is how there are people who are putting growth hormones in animals