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## **Fresh Start: Inspiring our Youth with Knowledge, Experience, Access to Farming, Local Foods, and Life Skills for Healthy and Sustainable Living**

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## **Fresh Start: Inspiring our youth with knowledge, experience, access to farming, local foods, and life skills for healthy and sustainable living.**

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### **Abstract**

During the Fall 2013 semester, we – a group of undergraduate students in LIB322: “Wicked Problems of Sustainability” – were challenged to ameliorate the ‘wicked problem’ of school lunches served in the Grand Valley State University’s magnet charter schools. We were faced with children’s unhealthy choices and school budgetary restrictions, a road involving extensive research and seemingly continuous problem solving. We discussed the issue-at-hand with several stakeholders who are involved with children, nutrition, school lunch programs as well as local garden/farming programs. After consolidating our core values, reviewing thorough research, and integrating informative input from our stakeholders, we formulized the following project proposal. We propose to establish an interactive club where students from all backgrounds at local schools (grades 6-8) can get a fresh look at food, nutrition and farming. The Fresh Start Club will have children gather at the Grand Valley State University Sustainable Agriculture Program (SAP) where they will (1) gain awareness of the importance of local, fresh and sustainably grown produce, and (2) be inspired to learn about and choose healthy lifestyles. The Club will thus teach them how their eating habits affect the environment, their health and their society. We suggest the club focus on a different topic each meeting. Topics could range from: farming strategies and planting, soil science, composting, the significance of local vs. imported food, cooking and taste-testing demonstrations focused on nutritional value, as well as the building of patio gardens (so they may have fresh foods at home). The club inspires to be educational while being interactive and fun for the children. At the end of each semester, a culminating event will be held where the children will (1) demonstrate their fresh new facts and skills to fellow classmates, family, and community members and (2) receive an award of completion. We believe that a hands-on approach partnered with an engaging educational experience focused on working *with* children is a good starting point in our attempt to tackle this particular wicked problem.

## Introduction

A wicked problem is defined as being ill structured, messy and multifaceted (Kolko, 2012). There is no simple definition of the problem and no single solution. Conflicting cultural, social, political and economic interests make wicked problems impossible to solve with a single answer. J. Kolko lists four main factors contributing to the “insolubility” of wicked problems (Kolko, 2012):

- multiple numbers and opinions of people involved;
- affliction on economics;
- inadequate or opposing knowledge on the topic; and
- the relationship of liability with multiple other problems.

In the Fall of 2013, Rob Kimball, Director of GVSU charter schools, visited our “Wicked Problems of Sustainability” classroom. Mr. Kimball, our first stakeholder engaged in this issue, presented on the wicked problem that plagues charter schools and the overall health of children: school lunches. He informed us that Grand Valley State University has 60 partner charter schools that educate over 30,000 students, of which, over 70% are qualified for free lunches. Additionally, schools only get \$7,160 annum per child from government funding. Mr. Kimball explained the government plan called “Feed the Brain” which was introduced under the Healthy, Hunger Free Kids Act of 2010. The act added more whole grains and fruit, reduced the use of sodium and enforced caloric guidelines per grade level in the school-provided lunches. While this was an improvement of food quality, children quickly showed opposition to the changes (Katz, 2012). Why was this? Research shows children have an “inherent preference” for sweet-tasting foods (Ogden, 2010). Yet, not all hope is lost explains Ogden, children’s food preferences can be modified by experience. “[E]ven the apparently

inherent preference for sweet tastes may be modified by familiarity” (Ogden, 2010). The Center for Disease Control (2013), reports over 17.5 million children in the United States are obese. The financial cost of obesity in America is no laughing matter. The CDC estimates obesity costs the United States over \$147 billion in 2008 alone (CDC, 2013). It is shown that nutrition is often a factor with poverty, the economy is connected with nutrition and poverty is connected with education, it is a big tangled mess and each hindrance leads to another wicked problem (Kolko, 2013).

Rob Kimball challenged us to ‘get creative’ in “solving” the wicked problem, asking us to consider “how we change the eating habits of school children?” To put it plainly, we – four college students – were challenged to address the problems arising from poverty, education and nutrition in a matter of one semester.

## Leading Research and Research Question

Valerie Brown and Judith Lambert, wicked problem scholars and collaborative action researchers, explain the value of beginning this work by sharing individual values. “Beginning with core values as a group,” they say, “is essential not least because we tend to act from our values and they thus tend to drive on the ground transformation” (Brown *et al.*, 2013). Beginning with values tends to “energize” ideas while starting with facts “freezes” wicked problem solving (Brown *et al.*, 2013). Taking this advice into account at our first group meeting, we sat together and each wrote our individual values on separate pieces of paper. We had four core focus values show up on everyone’s list: children, nutrition, education, and sustainability. After much discussion we realized that first and foremost our top interests were in education and nutrition. We decided to promote healthy eating by

engaging the students directly, encouraging them to take charge of their healthy eating choices (a bottom-up approach) rather than trying to implement change in the school lunch programs by targeting administrators (a top-down approach). We felt more effective change was likely to occur from a bottom-up approach because of the barriers we would be confronted with, specifically policy regulations and partnerships that schools have with big distributors. Although we decided that this is the best way to begin our program, we do recognize that we could gain a lot of insight from stakeholders with administrative positions granted a willingness to work with us in the future.

Also supporting our approach, research shows that children eat 67% healthier after educational programs than those that have not been educated (Harvard Reviews of Health News, 2007). It has also been shown that “developmental approaches to food choice emphasizes the importance of learning experiences and focuses on the development of food preferences in childhood” (Ogden, 2010). Taking the above points into account along with our values, we deliberated on the goals we wanted to achieve. In the end, we decided our project goals were to *educate, inspire, promote* and *excite* children through “education in disguise” towards healthier and sustainable lifestyles. Our goals mixed with research findings resulted with our proposal question: “How can we inspire children to be curious about and motivated to engage in healthy eating?”

Research shows nutrition and balanced diets are inextricably linked to imperative cognitive and physical development. Healthy diets have also been shown to prevent diabetes, obesity, heart disease and many other ailments (Porter, 2008). We personally interviewed nutritionist and dietician, Jill Vynke, to get a professional explanation of what a balanced meal is. Vynke explained that two servings of milk, two servings of protein, three servings of

vegetables, two servings of fruit and six servings of grains a day would qualify as a balanced diet for a child in elementary school (Vynke, 2013). Vynke also said most cases of diabetes and heart disease were catalyst health problems due to poor lifestyle and food choices (Vynke, 2013). While it is vital to take this information into account, it does not alone help us solve this problem. This is because, while linear science (and the information it provides us) can and often is helpful to society, it alone is “ill-suited” to deal with wicked problems (Batie, 2008). The linear approach to complex social problems tends to offer a single solution. It is important to note, for instance, that when a solution is economically viable, it is not automatically socially or sustainably viable (or vice versa). Economists not only need to apply monetary values to their analysis, but society’s values and assumptions as well. Batie, for instance, suggests exploring alternate policies as experiments by using adaptive management (2008). We understood this to mean we need to learn by doing, monitor project outcomes and keep solution options open to change.

Thus, going back to the question we were pursuing – “How can we inspire children to be curious about and motivated to engage in healthy eating?” -- we were inspired to consider pursuing two sub-questions: (1) How do we get healthy foods into the hands of children? and (2) how do we actually get them to want to eat it? In the end, we decided to address the second question; because of time restraints it was the issue that we could explore more productively.

As we recognize that our question encompasses a wide array of complex issues we determined that we needed to further break down our initial question to formulate more easily measurable sub-questions and, from here, a plan of action. We considered how we can teach children about where food comes from due to the fact that research shows children are ill informed about the origins of food (Taylor, 2013). Given that one out of every five fruits or vegetables Americans consume are imported

today, we decided we would like to show children the importance of eating locally (Hauter, 2008). Sub-questions we decided to look at included: how can we work with children to promote their desire to eat vegetables? How can we teach children to grow produce and help them understand that food comes from the ground and not the grocery store? How can we show children the differences of eating locally versus eating imported food? How do we get them to understand and appreciate the importance (social, economic and environmental values) of eating locally? In exploring these questions, we hope to gain a more comprehensive understanding of our main research question and thereby deconstruct this wicked problem.

In constructing our research question(s) we applied several of the class readings to help us determine the best way to go about constructing a plan to combat our wicked problem. A key component we took from the article entitled “Complexity, Wickedness, and Public Forests”, was the idea that when dealing with wicked problems one must consider the outcomes of many different approaches before settling on one (Allen, 1986)). Another article we pulled our approach from – “To Build or Not to Build a Road: How Do We Honor the Landscape through Thoughtful Decision Making?” – provided us with the concept of including a full range of intellectual disciplines and scholarly traditions to help define and manage wicked problems (Stefanovic, 2012). Aspects that we took from previous class discussions that have helped us to create our project include the discussion regarding the importance of taking creative approaches when solving wicked problems as well as the importance of implementing a hands-on approach when working on these problems. Our approach also encompasses the concept of ensuring that our solution utilizes the work and opinions of various stakeholders which was heavily emphasized during class.

In addition, each member of our group has unique expertise they bring to the table. Evan Bell is a Legal Studies major whose passion about sustainability leads him to strong interests in environmental policy. Ross Damon is a Liberal Studies major with an emphasis in sustainability. Dana Eardley, who works at the GVSU Sustainable Agriculture Project (SAP), is passionate about increasing food access and is a Liberal Studies major with an emphasis on sustainable food systems. Jessica Siemen is a Natural Resource Management major and is dedicated to conservation and restoration work. Together we all have unique skill sets, varying interests and we are all passionate and engaged in the topic of providing better food access to children.

### **Collaboration and Process**

Much of our research took place at the Grand Valley State University Sustainable Agriculture Project (SAP), through multiple stakeholders, detailed research, and many group multi-weekly meetings. We attempted to contact multiple magnet charter schools in the Grand Rapids area. After elapsed time of no response and dead ends with the charter schools we changed our focus from just the charter schools to any of the schools that face the same nutritional, financial and social problems. This was our first step to bringing the program to the GVSU Campus.

Having connections to the SAP we asked Levi Gardner, the SAP project manager at GVSU, if it would be feasible to hold a field trip in the gardens to help educate children. With his approval our plan started to take shape and we had a home base. Reading about organic benefits, plus personal knowledge through education of organic farming and actual practice of organic farming, we decided sustainable living was a big objective we needed to teach our children. Our focus went from just food in the charter schools lunch systems, to overall food quality as well as knowledge of growing it sustainably.

While reaching out to contacts and multiple stakeholders we stumbled upon the article “Foodways of the Urban Poor” by Alkon (2013). The study showed that 53-76% of the low-income people prefer to shop at large chain supermarkets, even those that live in food deserts (due in large part to the discounted prices larger chain stores have to offer). The respondents admitted to shopping around and venturing to different stores to get the better price (Alkon, 2013). This means many give up quality of food and lack of support to small local markets (only 8% even mentioned corner markets); stretching their food dollar was the main concern (Alkon, 2013). Not only did the respondents refer to the cost of food, many stated that access to fresh and healthy foods was a large problem. Many understood the importance of healthy and nutritious foods, but they did not have any nearby. In fact, one neighborhood studied had 50 liquor stores but no grocery stores or markets (Alkon, 2013). This brought to our attention the difficulty in access to fresh and healthy foods for so many and led us to conclude that we needed to move beyond discussing organic practices and show children how to grow a patio garden and/or indoor herb gardens. This would not only provide them with a valuable learning experience, but give them hands on activities to bring home to their families all while providing the means to grow their own food.

Tona Ambrose, Compliance and Management Skills at the GVSU Charter Schools, reviewed our proposal. She brought to our attention the importance of “developing lasting relationships” with the children. While speaking with her we came to the idea that instead of having a one-time field trip or meeting to the SAP, we could develop an after school club. This would give the children the feeling of exclusivity and importance along with a sense of belonging. In one meeting we went from a one day event to a semester long after school club. Each club meeting will have one of our focus goals as the theme of the day,

focusing on nutrition, sustainability and access. Each meeting would focus on new skills and lessons to be integrated with hands on activities.

Stakeholder Dan Kuipers, director of Viability Africa and Sustainable Energy Fundings in Holland, MI, brought to our attention the necessity to provide incentives for change. We should consider how we can give people a reason for change or behavior modification. We immediately thought this was a good idea, and formulated the last day of the club to be a graduation style event. We would hold a graduation ceremony and each child will get a certificate of completion. Merging this with the idea from Ken Freestone, Creativity Consultant and Environmental Advocate, to “make the project their own project”. We would give the children a sense of ownership in the project, thereby working to make it even more valuable to them. This proposal is supported by research on changing food habits. For instance, Ogden notes that “peer influence and social support can be used to modify eating behavior in the obese” (Ogden, 2010). With this in mind, our graduation day turned into a student-led community day. The last club meeting we will have the children invite their neighbors, families and peers so they can guide and teach those closest to them about the skills and knowledge they acquired throughout the semester. We called this final event “Child Led Community Day.” This final day should give them a sense of ownership as well as reaffirm and apply what they learned by teaching others. Our proposal, then, intentionally touches on our focus goals: educating, inspiring, promoting, and exciting children; this proposal also works with the research on changing food habits. For instance, Ogden’s research shows that “[T]he development of food preferences can be understood in terms of exposure, social learning, and associative learning” (Ogden, 2010).

As we continued to research and engage with stakeholders, we spoke with Norman Christopher, the executive Director of Sustainable Community Development Initiative

at GVSU. He reminded us “not to forget about collaboration.” Taking his advice into account, we held a presentation of our proposal at the Alumni House which was open to the public and invited many local stakeholders. Following our presentation was an open-forum discussion from which we collected feedback from attendees. This brought many perspectives and ideas to our proposal which we had not previously considered which were of great value. Logistical issues for the children to get to and from the SAP were addressed; a local non-profit – West Michigan Refuge Education and Cultural Center – was brought to our attention. They have volunteer services for transportation and infrastructure already in place. They are licensed and legal to transport children. We were also highly advised to work with the local non-profit, Wellhouse, as a partner on the project. Jeff Smith, the director of Wellhouse not only invited us to work with him on revising the current food system, but to further invent a whole new one. It was also suggested that we work with other local gardens and organization such as the YMCA and Blandford Nature Center as well as collaborate with programs they already have in existence.

Students who attended the open forum suggested that the Fresh Start Club be run by current GVSU students who may need volunteer hours or internship opportunities. Environmental Studies, Natural Resource Management, and Education majors are likely to be interested in this work and may even get credit with supervisors’ approval. Finally, there was also a suggestion that we consider holding club meetings more than once a month to keep the children engaged and focused.

### **Project Plans**

Through the above work, we finally propose to address our research question in the following ways: to create an after school program where children are taught about healthy eating, sustainable practices and the importance of local foods. This program should engage students from a local middle school to get them

interested in healthy eating. Research shows that when children work to collaborate on the design of a course, they are more excited about learning (Roth, 2013).

We will begin working with our research question by connecting with students through their schools while gauging their interest regarding food, nutrition, and farming. Secondly, we developed an after school program that addresses the topics of nutrition, sustainability, and access to fresh foods while trying to incorporate the students personal interests regarding these themes. The after school club will meet once a month, or once every other week, depending on interest factors of the children and leadership availability to run the club. At each meeting, different themes will be discussed. The students will have the chance to interact with the content, learn the material through hands-on, interaction in different stations associated with the topic being covered. Once the students have completed the after school program we will host a culminating community event at the Sustainable Agriculture Project (SAP) at Grand Valley State University. This event will allow the students to demonstrate the knowledge that they have gained through the program to their parents, siblings and friends by holding some of their favorite stations they engaged in during the program for the people who attend that event. This after school program will be led by Grand Valley students who are majoring in Natural Resource Management, Liberal Studies, Environmental Studies, Biology, Education or any other discipline that shows interest in participating. They will do this in exchange for either volunteer hours or internship credit.

Although we plan on getting student input regarding what content they would like to cover in the stations for each theme day, we have developed several different stations that we can provide as examples. Our stations are aimed at creating interest among the students surrounding the specific topics of where does food come from, what kinds of foods we should

eat and how we can create more awareness of the importance of healthy eating. Some of the stations that we have planned thus far include a cooking demonstration, a station where the children would plant a seed they could take home, a taste comparison of a local vegetable with one that has been imported, a soil health station where they can look into a microscope to view healthy soil compared to unhealthy soil and a station that teaches them about greenhouse, hoop houses and how farmers can grow foods in Michigan even in the winter.

We constructed our stations to directly address our sub-questions. We will address the sub-question of how do we hope to get children to eat vegetables through our cooking demonstration. We will address the sub-question of how to get children to understand how food is grown and not manufactured through the seed starting station as well as the soil health station. We will look at the sub-question of how we can get children to understand the importance of eating locally through our taste comparison station as well as our season extension station. We will use these stations as a starting point for the program but as mentioned earlier, if the students show interest in different topics and suggest they do not find the planned stations appealing, we would be open to amending the stations.

The field research for this project will take place in the form of a survey, which will be distributed to the students we target to attend the fieldtrip. This survey will take place in their classroom and it will ask questions that specifically gauge the students understanding of what they believe proper nutrition to be as well as gauge their understanding of where food comes from. We will also inquire into what their favorite foods are, what kinds of healthy foods they like and what they generally eat at home. We will ask questions in regards to what sorts of activities they like to participate in so that we can better understand how they prefer to learn. This survey will help us to construct the most effective stations for the students because it will

allow us to see what areas they are most familiar with as well as determine what areas we should place more emphasis on.

We hope to create a program that would be easily implemented by different student majors and that can be easily adapted to suit various types of students. Our areas of expertise in the matter vary greatly considering that we are approaching the problem from the disciplines of Natural Resource Management, Legal Studies, Public and Nonprofit Administration, and Liberal Studies. Our diverse disciplines have allowed us to consider the problem from different angles and ensure that the various components of healthy eating are addressed and integrated in our project. In addition, we collaborated with stakeholders from varying backgrounds including anthropology, biology, philosophy, cell and molecular biology and psychology in order to craft a more comprehensive program. Our project plan connects several perspectives on the issue of healthy eating. It does this by taking a multifaceted approach that will allow students to gain a better understanding of healthy eating (by seeing the issue through the lens of biologists, nutritionists, agroecologists, soil scientists as well as educators) in a manner that is both cohesive and interactive.

### **Special Challenges**

Attempting to tackle a problem that has no viable single solution is inherently challenging; encountering issues and roadblocks is inevitable. After the course began, the perplexing nature of our wicked problem quickly became apparent. Throughout the semester, the most daunting challenge was the lack of time to execute the project. At the beginning of the semester, our goal was not only to create a proposal, but to put it into action as well. After a few weeks, we knew carrying out our proposal in its entirety by the end of the semester was impossible. Our premise then shifted to creating a comprehensive proposal that could be continued and executed by future class sections.



As we stated, collaboration is absolutely vital when tackling a wicked problem. Without collaboration, one stands no chance for success. Unfortunately, collaboration takes time, effort and dedication, all of which can be difficult to obtain from stakeholders and experts in the field. When our group first set out to make changes to lunches in a nearby middle school, our goal was to collaborate with as many local lunch directors as possible. After sending many emails requesting collaboration, our group was left frustrated following an abysmal response rate from the directors.

Even after promising communication from a local teacher, the harsh reality of the difficulty to collaborate once again revealed itself. Our group spent several weeks communicating with a teacher who seemed enthusiastic and eager to play a role in our project. She expressed an interest in having her students involved with the project. Then suddenly, communication ceased. This provided an excellent, yet sad example of how difficult it can be to receive commitment from others.

### **Future Considerations**

As we finalize this proposal, there are some considerations that need to be addressed. These considerations include challenges we have acknowledged as a group as well as feedback provided by stakeholders at our presentation. One of our primary considerations is which school district we will coordinate the club with. Perhaps Holland, Grand Rapids, Allendale or Grandville? Our group wants to focus on a school in which a high percentage of students receive free or reduced school lunches. We also need to consider the size of the program. We are unsure how many students will participate and also the number of students we can engage without compromising the quality of education. One attendee of our presentation suggested that we start small with one classroom in one school district, and expand the program as we find it feasible.

Additionally, we must consider how we could encourage the children to join the club

and be eager to participate. Feedback included many different ideas ranging from having a large “feast” with chefs where students pick, help prepare, and eat the cuisine to holding a produce growing competition to spark interest in the club. Once we get a group of children involved, our group discussed having the club meet once of month. As noted, one stakeholder at the presentation raised a valid consideration and asked: “Why only once a month?” She said we should consider having the club meet every two or three weeks to encourage involvement and conserve momentum.

Our group understands that this project is neither perfect nor complete. Collaboration and effort will be needed to bring this proposal to fruition. We believe that we have conducted the necessary research and collaboration to begin moving forward with the project. While we have completed the foundation for Fresh Start Club, we look forward to application of this proposal into a successful project that is an asset to the community, making a valuable impact on children and sustainability for years to come.

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