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Promoting Healthy Eating and Sustainable Lifestyles

Lauryn Taylor
Grand Valley State University

Jillian Gornick
Grand Valley State University

Noah Lamboley
Grand Valley State University

Nick Proefke
Grand Valley State University

Lainey White
Grand Valley State University

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ENS 401: Environmental Problem Solving
Promoting Healthy Eating and Sustainable Lifestyles
Winter 2018
Lauryn Taylor
Jillian Gornick
Noah Lamboley
Nick Proefke
Lainey White

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Recommendations for Action	

As a group we have identified that the Grand Valley State University student body needs to be better educated on sustainable, healthy choices. Various studies have shown that college and university students generally lack proper nutrition. As a group, we asked a random sample of students on campus about their eating habits, both on and off campus. This was done to gain a better understanding of our peers' go-to choices and to try to understand why they make certain choices, as well as what we can do to offer healthier options. Along with this, we hope to end the stigma surrounding healthy, plant-based foods as being too expensive for a college student's budget. Our group chose to tackle the challenge of educating students on a healthier living style while also increasing involvement at the Sustainable Agricultural Project, also known as the SAP. We have brainstormed and developed a solution for this issue.

We felt a sense of compassion for our fellow peers on campus especially the many incoming freshman and transfer students that have not been educated on nutrition. This compassion is what led to our decision to take action and base our project on developing a solution to this issue. We have worked towards a plan of action to educate our peers and in turn hope they will pass on their knowledge to others throughout their life. Healthier eating and living habits have scientifically shown to improve mental health and academic performance. Therefore, in the long term we strive to see that this will help our smaller community contribute to teaching our larger community and start making a difference in the obesity, depression, and stress rates not just in young adults, but people of all ages.

Our overall objective for this specific project is to educate Grand Valley students and surrounding community members on the benefits of healthy eating and living. We plan to do so by promoting wholesome food on campus, and within nearby communities as well as incorporating new and innovative ideas for students and community members to live more

sustainably. A major way of doing this is by encouraging involvement at the Sustainable Agriculture Project (SAP) in a variety of ways.

We have brainstormed a solution to the overall health and nutrition problems surrounding students and community members incorporating Grand Valley's new student orientation program, Transitions. "Transitions is designed to provide intentional opportunities to build community and to share valuable information with students as they acclimate to life as Lakers." All first-year students are required to participate in Transitions. Each student is assigned to a small group of students, led by a Transitions Leader (which is an experienced GVSU student) that will guide the group through various programs, events, and activities. Our solution tackles both the nutrition problems, along with a focus on increased attendance and participation at the Sustainable Agricultural Project (SAP).

Healthy Transitions Day Event

- This event would take place during GVSU's Transitions, a program that is already set in place, prior to the start of the school year. During the new student orientation transitions week, the SAP would have their own event: a "Healthy Transition Day" which would include tours of the SAP, short sessions on the benefits of healthy eating through a plant-based diet, and activities available to students at the farm. This would also be an opportunity to teach new students about ways to get involved at the SAP through volunteering or internships. At this event, the SAP could potentially offer a few fresh vegetables or a flower to attending students to take home as an incentive. Having this transitions day at the SAP could increase attendance, volunteerism, and general interest of the SAP, while furthering our objective of educating students on healthy eating and promoting a healthier lifestyle.

Promotional Description

The Healthy Eating and Sustainable Lifestyle group focuses on educating students and community members and directing individuals to making healthier dietary choices. We plan to achieve this goal through the Healthy Transition Day that will target this problem, intended to educate and involve students and community members around Grand Valley. This idea involves incorporating the SAP into GVSU's transition week. With Healthy Transition Day, students have the ability to tour the farm and learn how to get involved during their time at Grand Valley.

We have conceptualized two additional solutions that would take more time, resources, and planning in order to implement. One of these ideas is the Nutrition and Wellness course that would take place at the SAP. In this course, students would be able to earn course credits while learning hands on how to have a healthier lifestyle. Additionally, we drafted an idea of creating a healthy cooking club on campus. The club would be for groups of students or faculty to meet at the SAP and learn hands-on by preparing, cooking, and enjoying nutritious meals and teach the group how fun, easy, and affordable it can be!

Timeline for Implementation

- Healthy Transitions Day
- Main website: gvsu.edu/transitions

- Promotional website: <https://lauryntaylor64.wixsite.com/gvsap>
 - Transitions Week 2018: August 23rd-August 25th
 - Thursday, August 23rd: SAP Invitational Day
 - Thursday would be specifically designated to hosting the Healthy Transitions Day
 - Students will visit and learn about the SAP in 1-hour shifts, beginning at 10:00 am and ending at 6:00 pm.
- Steps in order to implement this plan:
 1. Contact GVSU Student Life/Transitions team to see whether or not there is time and availability in order to host Healthy Transitions Day at the SAP
 - a. If time is not allotted, we shall table this idea and organize an on-campus showcase for the SAP.
 - i. Located near the transitional arch
 - ii. Condensed version of what the SAP offers at Grand Valley's seasonal farmer's market
 - b. If time is allotted, proceed to step 2.
 2. Contact van/shuttle rental services in order to provide transportation for new students to attend the event.
 3. Plan with Youssef and SAP interns in order to construct an itinerary of events.
 4. Promote the event on move-in day, just prior to transitions and the first week of classes

Organizational Values

The GVSU Sustainable Agriculture Project mission statement is as follows:

“Seeding sustainable food practices: We foster sustainable farming practices to promote ecological and food literacy. The farm strives to implement intensive agricultural practices that are ecologically durable, socially responsible, and economically viable. We promote social and food justice, while exploring various means of sustainable food production.”

Through the Healthy Transition Day, we aim to plant the seed of healthy eating and sustainable living in both students’ and community members’ daily lives. By utilizing the SAP, we are more able to more efficiently create an environment that is beneficial to this mission. The Healthy Transitions Day is a prime example of a means to properly educate, implement, and execute food literacy and sustainable practices. The info session will provide students with the knowledge, resources, and foresight on the many benefits of a sustainable lifestyle. Aiming this event towards new and transfer students earlier on in their college careers also offers the resources for students to know where they can go for volunteer and internship opportunities.

“Cultivating leadership and learning - We value student leadership with the continued mentoring and support of faculty and the farm manager. We foster student leadership through the Farm Club, volunteerism, internships, and student-led research. The farm is a student-led space. We value sustainable food system education that is rigorous and experiential. The project provides support to courses across the university. We encourage research projects that are student-initiated and/or interdisciplinary. We

wish to foster collaboration and experimentation within all teaching and learning in the project.”

The Healthy Transitions Day is an excellent opportunity for students to lead, collaborate, and share different ideas with one another. By providing students with the resources to share their knowledge of wholesome food, it furthers the SAP’s mission of cultivating leadership while keeping the central focus on the promotion of a healthy and sustainable lifestyle.

“Nurturing place - We value land and its ecological integrity. Place-based learning is at the heart of our work. The project sites provide places where the practical, political, ecological, and symbolic challenges of such work can be negotiated and explored.”

Continuing with the idea that the SAP is a nurturing place, we placed an emphasis on the importance of keeping all of our prototypes based at the SAP. It is vital that Healthy Transitions Day be held at the SAP in order to provide a space where students and community members can collaborate and learn together. They will feel confident knowing they are among a group of people that values healthy eating, sustainability, and the freedom to share ideas.

“Growing community - The project is rooted in community. We seek to grow relationships by providing a space for dialogue across disciplinary boundaries, the negotiation of interdisciplinary practices, and the contestation of ideas.”

Our recommendations for action address the idea of a growing community. Ultimately, we aim to see the SAP thriving through volunteerism, special events, classes, and continued interest. By allowing members of neighboring communities to join the SAP, and not limit its functions to Grand Valley students, we open the doors to many different perspectives, ideas, and outlooks that will both diversify and enrich time spent at the SAP.

Background Research

There are several possible direct and indirect pathways linking healthy eating and physical activity with academic achievement in schools. Some examples directly from the CDC website include:

- Student participation in the United States Department of Agriculture (USDA) School Breakfast Program is associated with increased academic grades and standardized test scores, reduced absenteeism, and improved cognitive performance (better memory)
- Skipping breakfast is associated with decreased cognitive performance among students cognitive performance such as alertness, attention, memory, processing of complex visual display, problem solving, etc.

- Students who are physically active tend to have better grades, school attendance, cognitive performance and have better classroom behaviors (more on-task behavior).²
- Higher physical activity and physical fitness levels are associated with improved cognitive performance like concentration and memory among students.
- More participation in physical education class has been associated with better grades, standardized test scores, and classroom behavior.
- Brief classroom physical activity breaks (5-10 minutes) are associated with improved cognitive performance such as better attention/concentration, improved classroom behavior, and educational outcomes (standardized test scores, reading literacy scores, math fluency scores) among students.
- Participation in extracurricular physical activities such as interscholastic sports has been associated with higher grade point averages, lower dropout rates, and fewer disciplinary problems among students.

On the CDC website, they target specific audiences- parents, state/government, and students, just to list a few. They provide different information to each audience group throughout their website. However they have four main or what they call “core messages” as an overall synopsis.

Core Messages:

1. Healthy students are better learners
 - Healthy students are better on all levels of academic achievement: academic performance, education behavior, and cognitive skills and attitudes.
2. Schools can influence eating and physical activity behaviors
 - Students spend much of their time at school, and may eat as many as 2 out of 3 meals per day and may get much of their physical activity at school.

3. Healthy, successful students help build strong communities

- Investing in the health of students contributes to healthy communities in the future.

4. All students deserve the opportunity to be healthy and successful

- Providing access to healthy foods and physical activity plays an important role in the academic achievement of students.

“Food is fuel” and “You are what you eat” are terms we often hear throughout our lifetimes but how often do we consider what that might actually mean? While researching benefits of eating healthier our group discovered that it’s true! Your body is really fueled by what you’re consuming. The kinds of foods and drinks that you consume determine the types of nutrients that enter your system and impact how well your mind and body are able to function. According to Eva Selhub, MD whom studied at Harvard and writes educational blogs promoting healthy lifestyles, food has a big role on how your body controls your emotions.

Serotonin is a neurotransmitter that helps regulate sleep and appetite, mediate moods, and inhibit pain. Since about 95% of your serotonin is produced in your gastrointestinal tract, and your gastrointestinal tract is lined with a hundred million nerve cells, or neurons, it makes sense that the inner workings of your digestive system don’t just help you digest food, but also guide your emotions.

The body of evidence linking diet and mental health is growing at a rapid pace. As well as its impact on short and long-term mental health, the evidence indicates that food plays an important contributing role in the development, management and prevention of specific mental

health problems such as depression, schizophrenia, attention deficit hyperactivity disorder, and Alzheimer's disease. Food production and manufacturing techniques, coupled with changing lifestyles and increasing access to processed foods, mean that our intake of fresh, nutritious, local produce is much lower, at the same time as our intake of fat, sugar, alcohol and additives is much higher.

Overweight and obesity are now considered a serious health care crisis, with increased risk of many serious diseases. The gain in weight is the result of eating more combined with less physical activity. Overweight and obese people have an increased risk of Type 2 diabetes, most cancers, high blood pressure, heart failure, stroke and a number of other diseases. The number of people diagnosed with diabetes, has double throughout the past decade and unfortunately only continues to skyrocket. Without changes in our eating and living styles those numbers are not going to go down. Diabetes however is only one example under the umbrella of overweight and obesity. The epidemic of obesity and overweight simply results from individuals consuming more calories than they burn. Traditionally obesity and overweight have been generally viewed as an issue of personal responsibility. However, with the enormous attention now being focused on this issue there is a transition from blaming the individual to blaming society, and the food industry in particular. Given the serious consequences of obesity and overweight for public health, there is a growing sense of urgency that significant public action is necessary.

Environmental Factors

Adopting a plant-based diet has a multitude of positive reactions that benefit the health of the environment. A plant-based diet can have positive effects on the world's freshwater, health of the Earth's soil, reduction of energy consumption, and an increase in air quality.

According to a study conducted by Joe McCarthy, "Hundreds of millions of people around the world do not have access to clean water. Many more people struggle with periodic water scarcity, sometimes because of drought and sometimes because of mismanagement of water sources. Livestock consume more freshwater than just about anything else. They're also one of the biggest polluters of fresh water." By switching to a plant-based diet, consumers use far less water than omnivorous diets.

Similar to how the animal agriculture industry is a leading cause of water pollution, another problem they cause is soil weakening and erosion. This is in part because raising livestock leads to deforestation, which clears huge areas of land of the different elements (such as trees) that provide nutrients and resilience, to make room for the livestock to roam. Raising a diversity of plants, instead, nourishes soil and leads to long-term resilience.

Best Practices

Three successful examples of projects found throughout North America that are comparable in several ways to our project are listed and described below. [more in-depth after looking into the projects more]

- The Kitchen Community (Big Green)
 - Create healthier environments in underserved schools, TKC builds Learning Gardens, thriving vegetable gardens, and hands-on outdoor classrooms seeking to

increase academic engagement and achievement, strengthen the bond between schools and their communities, and increase kids' knowledge of and preference for fresh fruits and vegetables.

- <https://biggreen.org/>
- Seven Generations Ahead
 - Works with the local government, community, and private sectors over a broad range of sustainability topic areas, including healthy community development, local food procurement, healthy eating, and sustainability education. Engage in local organic farm tours, chef cooking demonstrations, and school-based composting that demonstrates the natural cycle of growing and harvesting food, preparing and eating food, and converting waste into fertilizer for new food.
 - <http://sevengenerationsahead.org/schools/fresh-from-the-farm>
- Fresh Roots
 - Fresh Roots and the Vancouver School Board have partnered to develop outdoor, hands-on community learning classrooms called Schoolyard Market Gardens. A place of interaction for people of all ages, backgrounds, and cultures to explore food production, cooking, and eating. Produce grown in the gardens are distributed through a weekly Salad Box program as well as served in school cafeterias and local restaurants. Fresh Roots also hosts annual all-staff professional development days to help teachers learn how to use the garden as an outdoor classroom and achieve their specific curriculum objectives outside.
 - <http://freshroots.ca/>

Serve the Community - Inclusion and Equity Issues

Our project has the potential to educate people about healthy eating and a more sustainable lifestyle with respect of our proposals including consideration of relevant inclusion and equity issues as follow:

- Lack of access to transportation
 - Potential shuttling by Grand Valley busses
- Low income students/families in the community
 - Offer incentives, community support
- Lack of diversity of the individuals who volunteer
 - Advertise and plan for a guest speaker from SAP at international student gatherings
- Getting more GVSU faculty/staff involved
 - Asking faculty and staff to volunteer
- Lack of interest
 - Incentives such as giving free veggies to those who attend the club/class/transition day
- Potential difficulty getting funds
 - Fundraisers, grants, donations
- Getting non-GVSU students/community involved
 - Advertise around Allendale/Grand Rapids on social media and through word of mouth
- Volunteer hours are limiting

- More intern hours at the SAP to expand volunteer hours
- Liability
 - All volunteers required to sign a liability waiver

Educational Plan

- Cultivating leadership and learning: “value student leadership with the continued mentoring and support of faculty and the farm manager. We foster student leadership through the Farm Club, volunteerism, internships, and student-led research. The farm is a student-led space.”
 - The healthy cooking club will incorporate leadership and learning, as it will give some students the opportunity to share with and teach fellow peers.
 - Nutrition and Health transition activities will also provide opportunities for students to act as leaders for underclassmen.
 - The nutrition and health class will focus on educating students on healthy choices and foods.
 - The SAP offers internships for students of all backgrounds, including a variety of majors apart from natural sciences. This allows students of all interests to come together and relate their passions with sustainable practices. Working as an intern allows individuals to apply their interests to the farm in the form of a self-guided project, further emphasizing the role of leadership that is available to students.
- Sustainable practices: “Foster sustainable farming practices to promote ecological and food literacy. The farm strives to implement intensive agricultural practices that are

ecologically durable, socially responsible, and economically viable. We promote social and food justice, while exploring various means of sustainable food production.”

- Nutrition and Health transition activities relate a healthy diet to sustainable food practices. While visiting the SAP, students will get to see first hand how sustainable procedures are integrated at the farm
- The healthy cooking club will utilize vegetables from the SAP that are grown and harvested in a sustainable manner.
- The nutrition and health class will educate students on the importance of waste minimization, as well as how to grow vegetables sustainably.

Support of Food Production (Noah)

- Healthy Transitions Week
 - The activities during this week will provide education on a healthy diet and how that relates to sustainable food practices and production.
 - While students are visiting the SAP, they will be exposed to and taught about the many different sustainable processes implemented at the farm to produce sustainable food.
 - Healthy Transitions Week supports sustainable food production in terms of educating students about what goes on around the SAP. This event relates to the Fresh Roots farm tours in California where they explain how the farm came to be and how the farm lives and connects with the school and community.

Funding Plan and Budget

- Healthy Transitions Week
 - If giving out bags of veggies/flowers, we will have to make up for the lost cost of the veggies and flowers
 - Keep a log of quantity and pricing of vegetables and flowers given to attendees
 - Set a cap for the quantity and value of vegetables that are able to be given out at each shift and session. For example, vegetables that have a surplus at the SAP (lettuce, etc) can be more easily given away, while vegetables that are higher in demand (cucumbers, etc) must be given out more sparingly.
 - Offer students the ability to buy more produce if the demand is present.
 - Potentially hold a raffle for a grand prize that will consist of “u-pick” coupons, where students can come to the SAP and pick the vegetables/flowers of their choice
 - U-pick cards = \$25 value OR have a specified bag that can be filled
 - Grand prize could also consist of a pre-made vegetable basket
 - Cost of van or shuttle rental: \$100.00 for the day
 - 8 hours of van rental service

Donation Requests: \$300.00 from the University in order to cover the cost of vegetables and flowers for students.

- \$37.50 allocated for flowers and vegetables per 1-hour long session

Volunteer Job Descriptions: Will require time and resources. Ask volunteers to offer their knowledge/expertise of the SAP to lead informational sessions at the Healthy Transition Day.

Intern Job Descriptions: Will require time and resources. Ask interns to offer their knowledge/expertise of the SAP to lead informational sessions at the Healthy Transition Day.

Staff Responsibilities: Will require time and resources. Ask staffers to offer their knowledge/expertise of the SAP to lead informational sessions at the Healthy Transition Day.

Other Necessary Materials and Alternative Options

Below this paragraph are two additional solutions that we came up with as a group but unfortunately this semester we did not have enough time to fully develop. When assessed more thoroughly these ideas would take more time, planning, and resources to be properly implemented. However, we wanted to share what we have gathered thus far in hopes of future students becoming interested and expanding our ideas more thoroughly.

Nutrition and Wellness Course

- This course is designed to offer a hands-on experience for students to learn the basics about nutrition, plant-based eating, and daily physical activities to promote health and wellness. This course meets at the GVSU Sustainable Agriculture Project during the spring, summer, and fall semesters. This course is a 1-credit, elective course.
- This would be a one credit elective course that would be a semester long class that meets at the SAP once a week. This course would focus on healthy eating and sustainable lifestyles, as well as incorporate physical activities such as hikes, yoga, bike rides, small field trips, etc. This course would be offered in the spring, summer, and fall semesters.
- Offered Spring, Summer, and Fall Semesters (weather permitting)
 - In the event of inclement weather, Nutrition and Wellness Class shall meet in SAP Multipurpose Room/GVSU Recreation Center
- This course is designed to offer a hands-on experience for students to learn the basics about nutrition, plant-based eating, and daily physical activities to promote health and wellness. This course meets at the GVSU Sustainable Agriculture Project during the spring, summer, and fall semesters. This course is a 1-credit, elective course.
- Steps to propose a class
 - Step 1: the course itself must be approved by the Online Education Council

- Step 2: any faculty member who will be teaching the course must be approved.
- Step 3: the proposed course must be submitted in Sail, the online curriculum development system
- Step 4: the course must be reviewed

This class will take place at the SAP, so naturally, students will learn about healthy lifestyles and also what it takes to produce healthy, sustainable food by being on the property and seeing first hand how sustainable food production works.

- The Nutrition and Wellness class supports sustainable food production similar to the way Seven Generations Ahead does. They implement classroom food tasting and curriculum lessons that introduce students to varieties of fresh fruits and vegetables, their nutritional value, cultural uses, and cultivation methods.

Healthy Backyard Cooking Club

- This club would potentially be ran by farm workers, interns, or volunteers at the SAP to host an informal cooking class at the SAP. The initial launch of this idea would take place in the Wesley House and hopefully after sometime this could help promote and further justify the need of a multi-purpose room or building at the SAP. This would teach students how to navigate organic foods and create plant-based meals from things grown in our own backyards! (or purchased from the farmers market on campus!) This club would be open to first just students

around campus and then also open to the GVSU and Allendale community. With the club we would anticipate dues of \$10 -\$20 as a semester long fee that is subject to change based on interest, demand, and retention rate. This fee would cover materials used and SAP donation for space cost.

- Year-round activity; monthly meetings
- Initial meeting location at SAP; if student interest exceeds quota (12-14 max), multiple club sessions will be scheduled in order to accomodate.
- Steps to start a club/organization
 - Step 1: Log into OrgSync or make a profile if you don't have one.
 - Step 2: Check out the rules and guidelines for new organizations in the Registered Student Organization Handbook.
 - Step 3: Give the Office of Student Life a call to set up a meeting with Eric Stevens, so you can talk about your idea.
 - Step 4: Register your new club on OrgSync and fill out the form.
 - Step 5: Make sure you have at least four executive board members and a Faculty/Staff Advisor listed on your group's OrgSync, and a completed constitution.

Some other necessary materials that are required in order to achieve the goals of Healthy Transitions Day include:

Outreach

- Advertising Health and Nutrition Class, Cooking Club, and Healthy Transition Day
- Reaching out to community members in Allendale
 - Emphasis on incorporating the community; not restricted to solely Grand Valley Students

Transportation

- Shuttle from Kirkhof Center circle lot to SAP on Luce St.
- Could potentially incorporate the SAP into the 37/48 route (off-campus apartments)

Space

- Multipurpose building
- Small addition to the Wesley House
- Hoop house with tables/learning area

Supplies for club

- Cooking supplies (pots, pans, spatulas, tongs, etc)
 - These could be donated or purchased at places such as Goodwill or Red Barn

Contact Information

Lauryn Taylor - taylorl1@mail.gvsu.edu - (517) 402-5024

Jillian Gornick - gornickj@mail.gvsu.edu - (517) 899-2422

Noah Lamboley - lambolen@mail.gvsu.edu - (815) 993-1036

Nick Proefke - proefken@mail.gvsu.edu - (616) 902-7349

Lainey White - whitelai@mail.gvsu.edu - (586) 804-8583

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