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"Perks and produce of the Panther Plot": A multi-component program to engage UNI first-year Cornerstone students in local foods, gardening, and food system sustainability

Lauren Janning
University of Northern Iowa

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“PERKS AND PRODUCE OF THE PANTHER PLOT”: A MULTI-COMPONENT
PROGRAM TO ENGAGE UNI FIRST-YEAR CORNERSTONE STUDENTS IN LOCAL
FOODS, GARDENING, AND FOOD SYSTEM SUSTAINABILITY

A Thesis Submitted
in Partial Fulfillment
of the Requirements for the Designation
University Honors

Lauren Janning
University of Northern Iowa
April 2018

This Study by: Lauren Janning

Entitled: “Perks and Produce of the Panther Plot”: A Multi-Component Program to Engage UNI
First-Year Cornerstone Students in Local Foods, Gardening, and Food System Sustainability

has been approved as meeting the thesis requirement for the Designation University Honors

Date

Dr. Disa Cornish, Honors Thesis Advisor, Health Promotion and Education

Date

Dr. Jessica Moon, Director, University Honors Program

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A Personal Reflection

I planted a garden for the first time in my life last summer (2017). That experience opened my eyes to a world of opportunities laden with creativity, challenges, and (effortful) reward. I had very little knowledge regarding soil composition, plant health, and gardening basics; I simply planted seeds among 2,000 square feet of unused land and reaped the harvest—and an infinite amount of sandburs—a few months later. This experience, albeit arduous and irritating, had a profound impact on my perception of eating freshly grown produce and engaging in a local and sustainable food system.

When I returned to UNI in the fall, I recognized a similar lack of knowledge from my peers regarding local foods and our direct access to a sustainable food system in Cedar Falls. As a result, I began thinking about ways in which I could increase their awareness and hands-on experiences with local foods and provide students with an opportunity similar to what I had this past summer. When it came time to develop an idea for my undergraduate thesis, I thought researching more about student motivations and self-efficacy related to eating fruits and vegetables was the most tangible way for me to do so. As it turns out, however, I had most (if not all) of the knowledge and resources at my fingertips to design my own health education program for UNI students as part of the creative thesis for my University Honors designation. I was ecstatic for the opportunity to demonstrate my personal and academic knowledge and skills through the development of this comprehensive, multi-component program.

I thus started learning more about a primary source of local foods at UNI—the Panther Plot, our on-campus garden. I realized that due to previous resource constraints, no activities have been undertaken to track objectives/indicators associated with the original goals of the Panther Plot from its implementation in 2013. Therefore, I had the perfect opportunity to

increase the potential of this on-campus resource and teach students about local foods, gardening, and food system sustainability. Recognizing that a majority of students were unfamiliar with the Panther Plot, I chose to target my program at a group of students who were new to the university and had the opportunity to engage in on-campus resources for years to come. Thus, UNI First-Year Cornerstone students became my priority population for this health education program.

I began meeting with potential stakeholders—Rachel Morgan (First-Year Cornerstone professor), Eric O’Brien (Green Project UNI Advisor), Gabbie Ruggiero (Green Project UNI President), Joan Thompson (Health Promotion Coordinator), and Dr. Disa Cornish (my Honors Thesis advisor)—in order to learn more about the purpose of each organization and begin formulating complementary objectives for my health education program. I then planned, designed, and created each of the program components, including six monthly electronic newsletters; three flyers related to the Panther Plot and volunteering with members of Green Project UNI; and evaluation materials, which include one pretest and two posttests. Each of these components, in addition to a complete program description/proposal (i.e. executive summary, population overview, audience-identified motivators, program goals and objectives, budget narrative, etc.) are included below as part of my thesis for the University Honors designation.

“Perks and Produce of the Panther Plot” is unique in that it is the first program of its kind (that I am aware of) at UNI. It is the first Panther Plot program to have associated educational curriculum and measures to evaluate its impact on student knowledge and perception. It is the first program to connect Green Project UNI with First-Year Cornerstone and Student Wellness Services. It is the first program intentionally designed to engage university students in experiential learning related to local foods, gardening, and food system sustainability. “Perks and

Produce of the Panther Plot” is a pilot program with incredible potential to positively impact UNI First-Year Cornerstone students and increase their overall wellbeing due to collaborative engagement in on-campus gardening and a sustainable food system.

The content of this program will also serve as a valuable resource for future program implementation. The electronic newsletters can be modified and restructured based on their effectiveness from the pilot program. The Panther Plot flyers can be used by Green Project UNI members for future marketing efforts to all UNI students, independent of their participation in “Perks and Produce of the Panther Plot.” Perhaps most important are the evaluation materials associated with this program, which can be used to identify whether or not students gained knowledge regarding local foods, gardening, and food system sustainability and opportunities to engage in the Panther Plot at UNI. Collecting this data will allow for program modification and improvement in order to increase effectiveness during implementation efforts in the future.

All that said, perhaps most important for me is to reflect on the personal value of this entire experience. As I designed and created this program, I realized just how useful the skills were that I had gained from my Health Promotion and Education curriculum. The development of this health education program was a very practical application of the knowledge I had gained from my courses and a great culmination of my academic experiences at UNI. Even as I worked on my program, I had the opportunity to identify participant motivators, create a logic model, and develop a timeline in my Nutrition for Health Promotion course. I also wrote a hypothetical grant proposal for my program in my Implementing & Advocacy course with Dr. Roberts-Dobie.

Not only was I able to demonstrate the knowledge and skills I had gained from my Health Promotion and Education coursework, but I also acquired new experiences and skills in program marketing, graphic design, and survey development. All of this has been very constructive for

my future in Public Health as it pertains to program planning, implementing, and evaluation. If nothing else, I got to explore and deepen my passion for local foods and sustainable food systems while assembling a toolkit for future use in educating others about the value of a personal relationship with our food.

Executive Summary

The University of Northern Iowa (UNI) Panther Plot is an on-campus garden originally designed to provide university students with the opportunity to learn practical gardening skills and apply educational concepts concerning sustainable food systems (Aquilani, 2013). When implemented in 2013, the garden was expected to foster relationships and connections throughout the UNI community and offer a diverse learning experience in the pursuit of academic and civic excellence (Aquilani, 2013). Due to resource constraints, no activities have been undertaken to track objectives/indicators associated with the Panther Plot goals. After speaking with students, staff, and faculty associated with the functioning of the Panther Plot, it is clear that these goals are not being evaluated, and it is unlikely that they have been met since the garden's implementation.

Through the development of a new, multi-component health education program and associated evaluation materials, we can increase student awareness and use of the Panther Plot. Beginning Fall 2018, UNI Student Wellness Services will partner with First-Year Cornerstone in an effort to a) educate students regarding the importance of local foods, gardening, and food system sustainability; b) increase awareness regarding the opportunities available within the Panther Plot; and c) facilitate engagement in experiential learning through on-campus gardening.

In the implementation of this multi-component program, I will educate First-Year Cornerstone students regarding the importance of local foods, gardening, and food system sustainability (among other topics) via a monthly electronic newsletter distributed by the First-Year Cornerstone professors. I will increase awareness regarding the opportunities available within the Panther Plot via an oral presentation and informational flyers delivered to First-Year Cornerstone students by an executive member of Green Project UNI. Finally, I will facilitate

engagement in experiential learning through on-campus gardening and food system sustainability by allowing students to volunteer alongside the Green Project UNI members following their attendance of the oral presentation. The development of this program will increase the educational potential of the Panther Plot and contribute to an environment in which First-Year Cornerstone students are more aware of UNI's personal efforts to support food system sustainability and on-campus gardening.

Population Overview and Participant Outcomes

UNI First-Year Cornerstone students will be the target population for this program. The University of Northern Iowa's First-Year Cornerstone course was introduced during the 2011-2012 academic year as a six-credit, two-semester course which provides first-year students with diverse experiences, opportunities, and foundational skills that facilitate their effective transition to college (Office, n.d.). A positive first-year experience is the cornerstone of students' success in college, and by extension, their careers and lives. The University of Northern Iowa recognizes the importance and value of this positive first-year experience and thus encourages students to become active participants in campus and community life, engage in a variety of experiences, learn to listen to and respect diverse perspectives, and develop foundational skills to help them become well-educated individuals (University, n.d.).

According to the American Journal of Preventive Medicine, during the first three to four months of college, students gain an average of 1.5–6.8 pounds, with the proportion of overweight or obese students as much as doubling by the end of the first semester (New York, n.d.). Unfortunately, one fifth of the weight gain is associated with the all-you-can-eat college meal plans, excessive snacking, and junk food eating (Heath, n.d.). It is during this time of transition to college that students become more independent and are required to make their own (hopefully healthful) food choices. The literature is showing, however, that this is often not the case. In fact, according to the American College Health Association–National College Health Assessment, a 2008 study revealed that only 8.5% (of more than 80,000 U.S. college students) ate five or more servings of fruits and vegetables daily (ACHA-NCHA, n.d.). Additionally, college students have reported eating at fast-food restaurants an average of one to three times per week (New York,

n.d.). Research studies continue to be conducted in order to better understand the health status and primary needs of this population.

The First-Year Cornerstone students are unique in that very little research has been done on them as an individual population group. They fit within the realm of first-year undergraduate students, but this designation does not take into consideration social and educational factors that could potentially affect this particular undergraduate group. According to UNI's 2016-2017 Fact Book, there were 2,000 first-year undergraduates enrolled during the Fall 2016 semester (University...Institutional, n.d.). Approximately 91.7% of them were Iowa residents, 7.1% were non-Iowa residents, and 1.2% were international students. Among all first-year undergraduate students, 93% lived in the residence halls (60% women and 40% men). Previous years have displayed similar data related to first-year undergraduate students (University...Institutional, n.d.). That being said, it can be concluded from this data that a majority of the 550+ First-Year Cornerstone students are Iowa residents who live on campus (and will continue to be so in the coming years). Beyond that, not much data has been gathered regarding the demographics and health needs of UNI First-Year Cornerstone students. The evaluation component of this program will seek to collect additional details regarding this population.

The following outcomes are desired for First-Year Cornerstone students engaging in this pilot program. By the end of this program, participants will:

1. Gain knowledge regarding local foods, gardening, and food system sustainability
2. Increase awareness of the Panther Plot at UNI and associated opportunities available within the garden for First-Year Cornerstone students
3. Engage in experiential learning through on-campus gardening

It is important for First-Year Cornerstone students to participate in this program and learn about the benefits of a healthful diet. Eating fruits and vegetables can provide individuals with essential vitamins and minerals, fiber, and other substances that are important for good health (Centers, 2015). In fact, a diet that is rich in fruits and vegetables can lower blood pressure, reduce risk of heart disease and stroke, prevent some types of cancer, lower risk of eye and digestive problems, and have a positive effect on blood sugar which can help keep appetite in check (Harvard, 2016). As mentioned previously, studies show that less than ten percent of college students are eating more than five servings of fruits and vegetables each day. Creating a program that recognizes the importance of eating fruits and vegetables and allows students to engage in a local, sustainable food system will motivate behavior change and encourage First-Year Cornerstone students to adopt more healthful eating behaviors consisting of fresh, locally grown fruits and vegetables.

Psychosocial Determinants and Motivators/Facilitators of Change

There are a variety of factors that contribute to a person's current state of health; in the field of health education, these are referred to as psychosocial determinants. Examples of psychosocial determinants include social and societal factors, individual expectations and motivations, and current and past health behaviors. The outcome expectations of First-Year Cornerstone students will be the primary psychosocial determinant for engagement in this health education program. Because the campus engagement assignment from the course is mandatory for all First-Year Cornerstone students to complete, chances are high that some (if not many) will choose to select engagement in the Panther Plot at UNI as one of their three areas of involvement. I will also use the social component of Cornerstone to my advantage as students

often become involved on campus in pairs or groups. Delivering the program to students who are interested in local foods, gardening, and/or sustainability will hopefully ignite the excitement of other students and influence them to engage in the Panther Plot as well.

Having obtained audience-identified motivators allowed me to recognize that not all students will be motivated to volunteer based on their interest in the content of this program; those who do, however, may play a critical role in motivating others, especially those who have no interest in any of the other opportunities for engagement that are offered by the offices partnering with First-Year Cornerstone (motivation by comparison). Focusing on the student requirement for campus engagement (outcome expectations), social support, and interest in the content of the program (motivation and goals) will give me the opportunity to engage more First-Year Cornerstone students in this health education program and thus in the Panther Plot at UNI. Facilitators of change (listed below) are identified by UNI First-Year Cornerstone students in order to justify their participation in “Perks and Produce of the Panther Plot” based on their individual motivations.

Audience-Identified Motivators	Psychosocial Determinant(s)
Students want to earn course credit.	Outcome expectations
Students do not want to engage in other opportunities available on campus.	Motivation by comparison
Students want to participate in events that their friends are participating in.	Social support
Students want to learn more about the content associated with the program (i.e. local foods,	Motivation and goals

gardening, and/or food system sustainability).	
Students are looking for ways to be involved even after the course requirement is complete.	Civic engagement

Audience-Identified Facilitators	Psychosocial Determinant(s)
Students will engage in the Panther Plot at UNI if they receive class credit for it.	Outcome expectations
Students will engage in the Panther Plot at UNI if they have an interest in local foods, gardening, and/or food system sustainability.	Motivation and goals
Students will engage in the Panther Plot at UNI if they are influenced by their peers.	Social support
Students will engage in the Panther Plot at UNI if they do not like the other options available to them for this class requirement.	Motivation by comparison
Students will engage in the Panther Plot at UNI if they want to volunteer outside.	Motivation and goals

Program Description, Philosophy, and Theory

The primary theme my program will address is health education. This includes education regarding the Panther Plot (its history, purpose, and significance on our campus), Green Project UNI (the student organization associated with the Panther Plot), and the importance of local foods and the impact they have not only on our physical and emotional health but also on the health of the environment. As part of this multi-component program, First-Year Cornerstone

students' initial exposure to these concepts will be delivered via electronic newsletters, the first being distributed in September. These will include the aforementioned details regarding the Panther Plot and Green Project UNI, the importance and benefits of eating locally grown foods, and the resources, events, and opportunities available for students to engage in ecologically sound food systems.

First-Year Cornerstone students will have a second opportunity to learn more about the Panther Plot and Green Project UNI by attending a short oral presentation in partnership with UNI Student Wellness Services. They will hear directly from Green Project UNI members about the history and purpose of the Panther Plot and be given information (i.e. flyers) regarding volunteer opportunities within the garden. Students will then have the opportunity to choose whether or not they want to further engage with our on-campus local food resources.

This multi-component program will give First-Year Cornerstone students the opportunity to learn about sustainability in regards to our local food system and how UNI's Panther Plot is contributing to a healthier campus community. I will strive to inform students of the benefits of gardening in regards to physical and environmental wellness, mental health, and stress management. My hope is that students finish this experience having gained knowledge of and appreciation for local, ecologically sound food systems and that they begin to understand how their contributions can lend themselves to a more sustainable campus community.

The second theme my program will address is engagement. This includes engagement in both our on-campus vegetable garden and engagement in the larger campus community. First-Year Cornerstone students will connect with UNI Student Wellness Services and learn more about local, sustainable food systems while having the opportunity to gain hands on experience right on campus. While some incoming students may be aware of the existence of our on-campus

garden, they may not know how to learn more or get involved; thus, this multi-component program will give them the opportunity to do so.

The final theme my program will address is evaluation. Quantitative methods (in the form of a pretest and two posttests) will be used to measure the process and outcomes of this multi-component program. First-Year Cornerstone students will receive the pretest in August (prior to any exposure to program materials) and two posttests, one of which will be administered in December (upon conclusion of the oral presentation and any engagement in the Panther Plot) and the other in May (upon conclusion of the program). These evaluation materials will identify whether or not students gained knowledge regarding the importance and benefits of eating local foods, the history and purpose of the Panther Plot, and ways in which they can engage in our local food system. This data will allow the program to be modified for future implementation. For a visual representation of the dissemination of all program materials, please see the timeline (divided into fall and spring semesters) in Appendix C.

I will use the major constructs from the Social Cognitive Theory as a framework for my health education program. This theory addresses the outcome expectations (physical, social, and self-evaluative) of First-Year Cornerstone students; their expectations regarding engagement in the program; potential barriers or impediments; their individual self-efficacy, behavioral capability/capacity, and self-regulatory skills; and environmental factors such as observational learning/modeling and reinforcement. The Social Cognitive Theory proposes that First-Year Cornerstone student engagement in the Panther Plot at UNI is the result of personal, behavioral, and environmental factors that influence each other in a dynamic and reciprocal fashion (Contento, 2016).

Program Goals and Objectives

Goals:

1. First-Year Cornerstone students will gain knowledge regarding local foods, gardening, and food system sustainability.
2. First-Year Cornerstone students will increase their awareness of ways in which they can engage in the local food system.
3. First-Year Cornerstone students will increase their awareness of the Panther Plot and associated opportunities available within the garden.
4. First-Year Cornerstone students will engage in experiential learning through on-campus gardening.
5. First-Year Cornerstone students will have enhanced perceptions of wellbeing due to collaborative engagement in on-campus gardening and food system sustainability.
6. First-Year Cornerstone students will be motivated to eat more local fruits and vegetables due to engagement in on-campus gardening and food system sustainability.

Process Objectives:

1. First-Year Cornerstone professors will distribute six electronic newsletters—September, October, November, February, March, and April—to First-Year Cornerstone students regarding the importance of local foods, gardening, and food system sustainability.
2. Green Project UNI members will deliver an oral presentation and informational flyers regarding the history and purpose of the Panther Plot at UNI in addition to engagement opportunities available within the garden to First-Year Cornerstone students during the month of October.

3. First-Year Cornerstone students will volunteer alongside a Green Project UNI member in the Panther Plot for a minimum of one hour during the fall semester.

Outcome Objectives:

1. By the year 2020, the University of Northern Iowa will have mandated the implementation of the “Perks and Produce of the Panther Plot” program into the First-Year Cornerstone curriculum for on-campus engagement.
2. By the end of this program, 80% of First-Year Cornerstone students will be aware of the existence of the Panther Plot and know how to become engaged in on-campus gardening.
3. By the end of this program, 10% of all First-Year Cornerstone students will have engaged in experiential learning through on-campus gardening in the Panther Plot at UNI.

*A brief summary of “Perks and Produce of the Panther Plot” short-term, medium-term, and long-term outcomes can be found in the program logic model (Appendix A).

Program Plan

Component 1: Newsletters (see Appendix D)

The first component of “Perks and Produce of the Panther Plot” is the delivery of six electronic newsletters (created using MailChimp)—sent in September, October, November, February, March, and April—to First-Year Cornerstone students regarding the importance of local foods, gardening, and food system sustainability and associated resources. Please click the following campaign URLs in order to view a template of each of the monthly electronic newsletters for “Perks and Produce of the Panther Plot.”

Newsletter 1 (September): <https://mailchi.mp/3fba532e884b/pantherplotprogram1>

Newsletter 2 (October): <https://mailchi.mp/ea7e4eeda88c/pantherplotprogram2>

Newsletter 3 (November): <https://mailchi.mp/890c0e747c90/pantherplotprogram3>

Newsletter 4 (February): <https://mailchi.mp/116fd2fd8bf7/pantherplotprogram4>

Newsletter 5 (March): <https://mailchi.mp/3ce03d2609a2/pantherplotprogram5>

Newsletter 6 (April): <https://mailchi.mp/b03b02c26f45/pantherplotprogram6>

Component 2: Oral Presentation and Informational Flyers (see Appendix E)

First-Year Cornerstone students will have a second opportunity to learn more about the Panther Plot and Green Project UNI by attending a short oral presentation in partnership with UNI Student Wellness Services. They will hear directly from Green Project UNI members about the history and purpose of the Panther Plot and be given informational flyers regarding volunteer opportunities within the garden. Students will then have the opportunity to choose whether or not they want to further engage with our on-campus local food resources.

Component 3: Engaging in the Panther Plot

First-Year Cornerstone students will have the opportunity to volunteer alongside a Green Project UNI member in the Panther Plot for a minimum of one hour during the fall semester. This will allow them to gain experience gardening as well as the opportunity to learn more about UNI's personal efforts to support food system sustainability and on-campus gardening.

*Appendix C contains a program timeline that visually represents the implementation of all program components. Additional details regarding the program plan have been described in

previous sections of this health education program proposal. Please refer to those sections and the appendices for more information regarding “Perks and Produce of the Panther Plot.”

Evaluation Plan

Quantitative methods (in the form of a pretest and posttests created using Qualtrics software) will be used to measure the process and outcomes of this multi-component program. First-Year Cornerstone students will receive the pretest in August (prior to any exposure to program materials) and two posttests, one of which will be administered in December (upon conclusion of the oral presentations and any engagement in the Panther Plot) and the other in May (upon conclusion of the program). These evaluation materials will identify whether or not students gained knowledge regarding the importance and benefits of eating local foods, the history and purpose of the Panther Plot, and ways in which they can engage in our local food system. This data will allow the program to be modified for future implementation.

Process evaluation methods will determine whether or not the program materials (i.e. monthly electronic newsletters, oral presentation, and informational flyers) were delivered to every First-Year Cornerstone student at UNI. Ensuring that all necessary resources are in place to produce a successful program is critical when evaluating this multi-component program. This can be done through the review of material dissemination logs maintained by First-Year Cornerstone professors throughout the semester.

Please see Appendix F for electronic links to and printed exports of the three Qualtrics surveys (i.e. Pretest, Posttest #1, and Posttest #2) for “Perks and Produce of the Panther Plot.”

Budget Narrative

There are no immediate needs for which funding is necessary for the implementation of this program. All potential funding required of this program would be the responsibility of and thus provided by external offices at the University of Northern Iowa. Examples would include the need for new gardening tools or the use of marketing materials to promote Green Project UNI events (both of which could be externally sourced through the UNI Office of Sustainability and their associated Green Fund). Appendix A contains a program logic model which outlines necessary inputs for the program. Those that cannot be externally sourced would be covered using grant funding. Please see Appendix B for an example grant proposal using the R.J. McElroy Trust Grant Application. No other monetary requirements exist at present for the implementation of “Perks and Produce of the Panther Plot.”

Implications and Conclusion

Incorporating evaluation strategies into this program design allows us to identify whether or not it was successful upon conclusion of implementation. If so, there are a variety of implications to be considered which can be separated based on level of impact. First, it is expected that many UNI First-Year Cornerstone students who take part in “Perks and Produce of the Panther Plot” will meet the goals set forth during the development of this program. This relates to the improvement of their environmental wellness and overall enhanced perceptions of wellbeing. In the future, this recognition of the importance of environmental wellness could contribute to a reduction in obesity levels for this particular population of UNI students. Furthermore, First-Year Cornerstone students may acquire a newfound commitment to the purchasing and consumption of local foods. This, combined with a similar appreciation for the

Panther Plot and its purpose, will ultimately maximize the garden's potential as a social and educational resource for students.

Not only will a successful program reap many benefits among First-Year Cornerstone participants, but it will also affect other UNI students, staff, and faculty, and even the Cedar Valley community. On-campus, knowledge, passion, and experiences could begin to spread among other students and employees, expanding the value of the Panther Plot and resources available for others to get involved. In the community, local food system organizations might see an influx of student volunteers interested in learning more about engagement opportunities. We may also see economic growth in our community as UNI students, staff, and faculty learn more about the local food system and begin investing in it (i.e. through the purchasing of local produce from Farmers Markets, retail stores, restaurants, or supermarkets).

Finally, the implementation of a successful “Perks and Produce of the Panther Plot” could allow for the adoption and implementation of this program (or slightly modified one) by other institutions throughout the nation. In fact, all of the program materials can be modified and restructured based on the effectiveness of this pilot program at UNI. Having a health education program that values local foods, incorporates environmental wellness through engagement in an on-campus garden, and recognizes and promotes a sustainable local food system throughout the community could be transformational at institutions that lack similar programming in their classroom curriculum. “Perks and Produce of the Panther Plot” is a comprehensive, multi-component program designed to increase student wellbeing due to collaborative engagement in on-campus gardening and a sustainable food system, and it will do just that at UNI and other institutions at which it is implemented.

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Appendix A: Logic Model

“Perks and Produce of the Panther Plot” – Logic Model

INPUTS	OUTPUTS		OUTCOMES		
	Activities	Participation	Short-term	Medium-term	Long-term
What we invest -Stakeholder knowledge, feedback, and participation -Trained Green Project UNI volunteers -Panther Plot -Gardening equipment -Paper and ink -Referral resources	What we do -Develop and distribute six monthly electronic newsletters -Deliver oral presentation -Facilitate engagement in the Panther Plot -Assess and measure success for students, professors, and Panther Plot affiliates	Who we reach -First-Year Cornerstone students -First-Year Cornerstone professors -Green Project UNI members -Recipients of the Panther Plot produce	Process -Delivery of all program materials -Engaged and active participants -Positive participant feedback -Increased self-reported intentions to eat more local fruits and vegetables -Student engagement in experiential learning through on-campus gardening	Impact -Individual changes in knowledge, attitudes, and skills related to <ul style="list-style-type: none"> • local foods • gardening • food system sustainability • Panther Plot -Increased consumption of local fruits and vegetables -Increased awareness of the Panther Plot and events / opportunities	Outcome -Implementation of “Perks and Produce of the Panther Plot” in First-Year Cornerstone curriculum for on-campus engagement -Increased knowledge of local foods, gardening, and food system sustainability -Increased campus engagement and improved wellbeing

Appendix B: R.J. McElroy Trust Grant Application

Date: April 17, 2018

Organization/Agency Requesting Funding: UNI Student Wellness Services

Project: “Perks and Produce of the Panther Plot”

Address: 16 Student Health Center, University of Northern Iowa, Cedar Falls, IA 50614

Contact Person and Title: Lauren Janning, Program Coordinator

Telephone: (319) 273-3423

Fax: (319) 273-7030

Email: janningl@uni.edu

Amount Requesting: \$600 **Total Project Budget:** N/A **Total Annual Agency Budget:** N/A

Type of Request: New Program/Project and Equipment/Materials

I. Organization

A. Briefly describe the purpose of your organization:

Student Wellness Services supports the journey toward optimal health and well-being through holistic health promotion and education to enhance student success. Our new health education program, “Perks and Produce of the Panther Plot”, is designed to engage all UNI First-Year Cornerstone students in local foods, gardening, and food system sustainability through monthly electronic newsletters, an oral presentation and informational flyers, and on-campus gardening in the Panther Plot.

B. Organization’s utilizations of volunteers

1. Number of volunteers annually: 8

2. How are these volunteers utilized?

Volunteers for this program primarily include Green Project UNI members, who will distribute informational flyers to First-Year Cornerstone students and volunteer alongside them in the Panther Plot during the fall semester.

II. Project

A. Describe the community need / problem being addressed by this project.

The University of Northern Iowa (UNI) Panther Plot is an on-campus garden originally designed to provide university students with the opportunity to learn practical gardening skills and apply educational concepts concerning sustainable food systems (Aquilani, 2013). When implemented in 2013, the garden was expected to foster relationships and connections throughout the UNI community and offer a diverse learning experience in the pursuit of academic and civic excellence (Aquilani, 2013). Due to resource constraints, no activities have been undertaken to track objectives/indicators associated with the Panther Plot goals. After speaking with students, staff, and faculty associated with the functioning of the Panther Plot, it is clear that these goals are not being evaluated, and it is unlikely that they have been met since the garden’s implementation.

Through the development of a new, multi-component health education program and associated evaluation materials, we can increase student awareness and use of the Panther Plot.

Additionally, we can address opportunities to engage in the local food system and contribute to a more sustainable food system and improved environmental wellness for first-year students.

B. Project description

1. Briefly describe the project.

Beginning Fall 2018, UNI Student Wellness Services will partner with First-Year Cornerstone in an effort to a) educate students regarding the importance of local foods, gardening, and food system sustainability; b) increase awareness regarding the opportunities available within the Panther Plot; and c) facilitate engagement in experiential learning through on-campus gardening.

In the implementation of this multi-component program, we will educate First-Year Cornerstone students regarding the importance of local foods, gardening, and food system sustainability (among other topics) via a monthly electronic newsletter distributed by the First-Year Cornerstone professors. We will increase awareness regarding the opportunities available within the Panther Plot via an oral presentation and informational flyers delivered to First-Year Cornerstone students by an executive member of Green Project UNI. Finally, we will facilitate engagement in experiential learning through on-campus gardening and food system sustainability by allowing students to volunteer alongside the Green Project UNI members following their attendance of the oral presentation. The development of this program will increase the educational potential of the Panther Plot and contribute to an environment in which First-Year Cornerstone students are more aware of UNI's personal efforts to support food system sustainability and on-campus gardening.

2. Describe expected outcomes. (How will you know if the project has been successful?)

Quantitative methods (in the form of a pretest and posttests created using Qualtrics survey software) will be used to measure the process and outcomes of this multi-component program. First-Year Cornerstone students will receive the pretest in August (prior to any exposure to program materials) and two posttests, one of which will be administered in December (upon conclusion of the oral presentations and any engagement in the Panther Plot) and the other in May (upon conclusion of the program).

Goals:

- First-Year Cornerstone students will gain knowledge regarding local foods, gardening, and food system sustainability.
- First-Year Cornerstone students will increase their awareness of ways in which they can engage in the local food system.
- First-Year Cornerstone students will increase their awareness of the Panther Plot and associated opportunities available within the garden.
- First-Year Cornerstone students will engage in experiential learning through on-campus gardening.

- First-Year Cornerstone students will have enhanced perceptions of wellbeing due to collaborative engagement in on-campus gardening and food system sustainability.
- First-Year Cornerstone students will be motivated to eat more local fruits and vegetables due to engagement in on-campus gardening and food system sustainability.

Process Objectives:

- First-Year Cornerstone professors will distribute six electronic newsletters—September, October, November, February, March, and April—to First-Year Cornerstone students regarding the importance of local foods, gardening, and food system sustainability.
- Green Project UNI members will deliver an oral presentation and informational flyers regarding the history and purpose of the Panther Plot at UNI in addition to engagement opportunities available within the garden to First-Year Cornerstone students during the month of October.
- First-Year Cornerstone students will volunteer alongside a Green Project UNI member in the Panther Plot for a minimum of one hour during the fall semester.

Outcome Objectives:

- By the year 2020, the University of Northern Iowa will have mandated the implementation of the “Perks and Produce of the Panther Plot” program into the First-Year Cornerstone curriculum for on-campus engagement.
- By the end of this program, 80% of First-Year Cornerstone students will be aware of the existence of the Panther Plot and know how to become engaged in on-campus gardening.
- By the end of this program, 10% of all First-Year Cornerstone students will have engaged in experiential learning through on-campus gardening in the Panther Plot at UNI.

C. Targeted population

1. **Number of youth to be served:** None
2. **Number of adults:** 600
3. **Geographic area:** University of Northern Iowa, Cedar Falls, IA

III. Financial Information

A. How will the funds you are requesting be used?

Funds will be used to purchase marketing materials such as 300 flyers. Grant funding will also allow the purchasing of incentives for volunteers, including reusable grocery bags and Panther Plot t-shirts.

B. Other funding requests

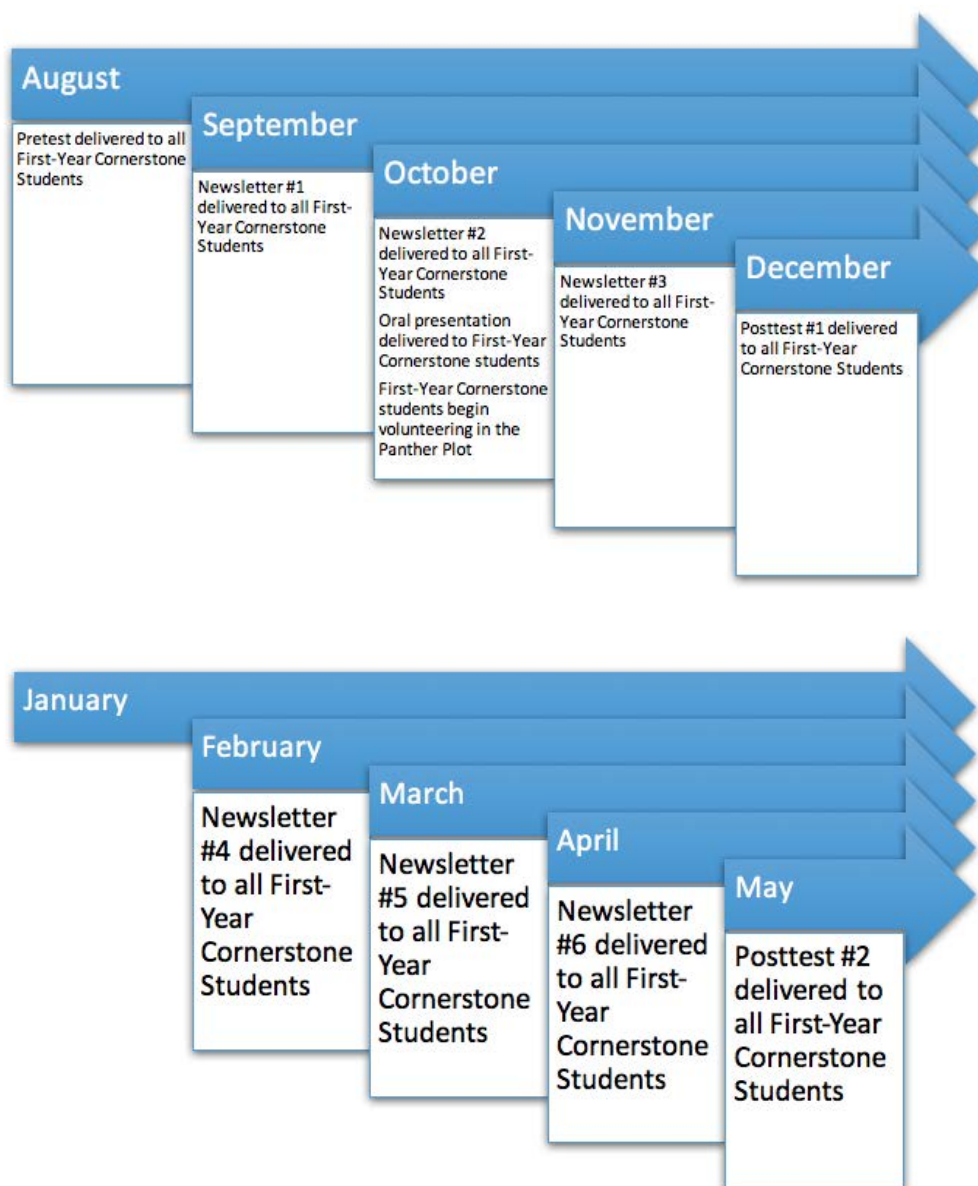
Departments within the University of Northern Iowa will provide funding for other necessary resources for this project (i.e. gardening tools, faculty and staff reimbursement, etc.).

C. Plans for ongoing funding

Donations from partnering community organizations will be utilized in future program implementation (ex. reusable grocery bags from Natural Grocers).

Appendix C: Timeline

Assuming all program materials are developed and sufficient for dissemination, the following timeline (divided into fall and spring semesters) refers to the actual implementation of “Perks and Produce of the Panther Plot.” Events not included in this timeline are those that are promoted but not sponsored by this health education program, including those hosted by Green Project UNI and others related to local foods and food-system sustainability.



Appendix D: Newsletters

The first electronic newsletter for this program includes the following elements:

1. “Perks and Produce of the Panther Plot”
 - a. What is it?
2. The Panther Plot
 - a. Description
 - b. Link to website
3. Green Project UNI
 - a. Purpose
 - b. How to get involved
 - i. Link to Facebook page
4. Upcoming events
5. Ecological Footprint Calculator

Please click the following campaign URLs in order to view a template of each of the monthly electronic newsletters for “Perks and Produce of the Panther Plot.”

Newsletter 1 (September): <https://mailchi.mp/3fba532e884b/pantherplotprogram1>

Newsletter 2 (October): <https://mailchi.mp/ea7e4eeda88c/pantherplotprogram2>

Newsletter 3 (November): <https://mailchi.mp/890c0e747c90/pantherplotprogram3>

Newsletter 4 (February): <https://mailchi.mp/116fd2fd8bf7/pantherplotprogram4>

Newsletter 5 (March): <https://mailchi.mp/3ce03d2609a2/pantherplotprogram5>

Newsletter 6 (April): <https://mailchi.mp/b03b02c26f45/pantherplotprogram6>

Appendix E: Flyers





UPCOMING EVENTS

5TH ANNUAL HARVEST FESTIVAL
August 24th, 5-7 pm
The Panther Plot at UNI
Enjoy free food and live music by Karla Ruth
All are welcome!

GUEST SPEAKER: MAJORA CARTER
Home(town) Security
October 3rd, 5-6 pm
UNI Commons Ballroom
Reception to follow in the Georgian Lounge

FILM: AN INCONVENIENT SEQUEL
October 26th, 5:30-8:30 pm
Curris Business Building Room 109
Live webcast with Al Gore to follow

GUEST SPEAKER: ANTHONY ROGERS-WRIGHT
Taking the Leap: Caring for the earth & one another
October 19th, 7-8:30 pm
Curris Business Building Room 109
Event is free and open to the public
No RSVP required

WWW.SUSTAINABILITY.UNI.EDU/PANTHER-PLOT

Join Green Project UNI

IN THE PANTHER PLOT
#VolunteerForVeggies

Mondays

4-6 pm with Gabbie Ruggiero

Tuesdays

1-3 pm with Juan Hernandez

Wednesdays

4-6 pm with Lily Conrad

Thursdays

3-5 pm with Karla Garcia

Fridays

9-11 am with Eric O'Brien

>Volunteers can come
and go as they please!

No RSVP necessary



Appendix F: Qualtrics Surveys

“Perks and Produce of the Panther Plot Pretest”

Please click the following link to view the Qualtrics survey or see the exported Word document version below (pg. 33-36).

https://uni.co1.qualtrics.com/jfe/form/SV_aYkDPuHy1fVIGuF

“Perks and Produce of the Panther Plot Posttest #1”

Please click the following link to view the Qualtrics survey or see the exported Word document version below (pg. 37-43).

https://uni.co1.qualtrics.com/jfe/form/SV_eQ0IUEmxDBklD3n

“Perks and Produce of the Panther Plot Posttest #2”

Please click the following link to view the Qualtrics survey or see the exported Word document version below (pg. 44-50).

https://uni.co1.qualtrics.com/jfe/form/SV_eWdulwNz4EzFq3r

Perks and Produce of the Panther Plot

Pretest

Start of Block: Default Question Block

Q1 Thank you for taking the time to answer a few questions about UNI's on-campus garden, the Panther Plot, and your knowledge of the local food system. These questions are voluntary and confidential. Your information and responses will be kept private.

Q2 Do you live on campus or off campus?

- ☐ On campus (1)
- ☐ Off campus (2)
-

Q3 Prior to today, were you aware that UNI has an on-campus garden (the Panther Plot)?

- ☐ Yes (1)
- ☐ No (2)
-

Display This Question:

If Q3 = Yes

Q4 Do you know where the Panther Plot is located?

- ☐ Yes (1)
- ☐ No (2)

Display This Question:

If Q4 = Yes

Q5 Have you ever been to the Panther Plot?

☐ Yes (1)

☐ No (2)

Display This Question:

If Q5 = Yes

Q6 Why did you visit the Panther Plot? Please select all that apply.

☐ Attended an event (1)

☐ Volunteered (2)

☐ Wanted to check it out (3)

☐ Just stumbled upon it (4)


☐ Other (please explain): (5) _____

Q7 Please rank your knowledge of the following:

0 = Unfamiliar

Very knowledgeable = 5

0 1 2 3 4 5




How to get involved with the Panther Plot (1)	
---	--

Q8 Please rank how familiar you are with each of these terms:

0 = Unfamiliar

Very knowledgeable = 5

0 1 2 3 4 5

Local food systems (1)	
Gardening (2)	
Food system sustainability (3)	

Q9 How many servings of fruits and vegetables do you eat per day?

- ☐ None (1)
- ☐ 1-2 (2)
- ☐ 3-4 (3)
- ☐ 5-6 (4)
- ☐ 7+ (5)

Q10 How often are your food choices influenced by whether or not the product is grown locally?

- ☐ Often (1)
- ☐ Sometimes (2)
- ☐ Rarely (3)
- ☐ Never (4)

Q11 How much do you think each of the following impact your overall wellbeing?

0 = Not at all A great deal = 5

0 1 2 3 4 5

Eating fruits and vegetables (1)	
Gardening (2)	
Choosing locally grown foods (3)	
Spending time outside (4)	

Q12 If you would like to know more about the Panther Plot, including ways to get involved, please leave your name and email address in the space below.

End of Block: Default Question Block

Perks and Produce of the Panther Plot

Posttest #1

Start of Block: Default Question Block

Q1 Thank you for taking the time to answer a few questions about UNI's on-campus garden, the Panther Plot, and your knowledge of the local food system. These questions are voluntary and confidential. Your information and responses will be kept private.

Q2 Do you live on campus or off campus?

- ☐ On campus (1)
- ☐ Off campus (2)
-

Q3 Prior to today, were you aware that UNI has an on-campus garden (the Panther Plot)?

- ☐ Yes (1)
- ☐ No (2)
-

Display This Question:

If Q3 = Yes

Q4 Do you know where the Panther Plot is located?

- ☐ Yes (1)
- ☐ No (2)

Display This Question:

If Q4 = Yes

Q5 Have you ever been to the Panther Plot?

☐ Yes (1)

☐ No (2)

Display This Question:

If Q5 = Yes

Q6 Why did you visit the Panther Plot? Please select all that apply.

☐ Attended an event (1)

☐ Volunteered (2)

☐ Wanted to check it out (3)

☐ Just stumbled upon it (4)

☐ Other (please explain): (5) _____

Q7 Did you receive the three monthly newsletters from Fall 2018?

☐ Yes (1)

☐ No (2)

Skip To: Q13 If Q7 = No

Display This Question:

If Q7 = Yes

Q8 Did you read the newsletters?

- ☐ Yes, all 3 (1)
- ☐ Yes, 2 (2)
- ☐ Yes, 1 (3)
- ☐ No (4)

Skip To: Q13 If Q8 = No

Q9 How would you rate the following aspects of the newsletters?

Layout (1)					
Colors/Graphics (2)					
Usefulness of the content (3)					
Amount of information presented (4)					

Q10 What did you like best about the newsletters?

Q11 What did you like least about the newsletters?

Q12 Please list other topics you would have liked to have seen covered in the newsletters, if applicable.

Q13 Did you attend a First-Year Cornerstone Campus Engagement presentation?

- ☐ Yes (1)
- ☐ No (2)

Display This Question:

If Q13 = Yes

Q14 Did you speak with a representative from the Panther Plot before or after the presentation?

- ☐ Yes (1)
- ☐ No (2)

Skip To: Q16 If Q14 = No

Display This Question:

If Q14 = Yes

Q15 How helpful did you find your conversation with the Panther Plot representative?

- ☐ Very helpful (1)
- ☐ Somewhat helpful (2)
- ☐ Not at all helpful (3)

Q16 Did you volunteer in the Panther Plot this semester?

- ☐ Yes (1)
- ☐ No (2)

Skip To: Q19 If Q16 = No

Q17 How many hours did you volunteer in the Panther Plot?

- ☐ 1 (1)
- ☐ 2 (2)
- ☐ 3 (3)
- ☐ 4+ (4)

Q18 What did you do while volunteering in the Panther Plot? Select all that apply.

- ☐ Pulled weeds (1)
- ☐ Harvested vegetables (2)
- ☐ Prepared the garden for winter (3)
- ☐ Other (please specify) (4) _____

Display This Question:

If Q16 = No

Q19 Please select your primary reason for not volunteering in the Panther Plot.


- ☐ I didn't know I could. (1)
- ☐ I didn't know how to. (2)
- ☐ I wasn't interested. (3)
- ☐ I didn't want to go alone. (4)
- ☐ I didn't have time. (5)
-

Q20 Please rank your knowledge of the following:

0 = Unfamiliar

Very knowledgeable = 5

0 1 2 3 4 5




How to get involved with the Panther Plot (1)	
---	--

Q21 Please rank how familiar you are with each of these terms:

0 = Unfamiliar

Very knowledgeable = 5

0 1 2 3 4 5

Local food systems (1)	
Gardening (2)	
Food system sustainability (3)	

Q22 How many servings of fruits and vegetables do you eat per day?

☐ None (1)

☐ 1-2 (2)

☐ 3-4 (3)

☐ 5-6 (4)

☐ 7+ (5)



Q23 How often are your food choices influenced by whether or not the product is grown locally?

- ☐ Often (1)
- ☐ Sometimes (2)
- ☐ Rarely (3)
- ☐ Never (4)

Q24 How much do you think each of the following impact your overall wellbeing?

0 = Not at all

A great deal = 5

	0	1	2	3	4	5
Eating fruits and vegetables (1)						
Gardening (2)						
Choosing locally grown foods (3)						
Spending time outside (4)						

Q25 If you would like to know more about the Panther Plot, including ways to get involved, please leave your name and email address in the space below.

End of Block: Default Question Block

Perks and Produce of the Panther Plot

Posttest #2

Start of Block: Default Question Block

Q1 Thank you for taking the time to answer a few questions about UNI's on-campus garden, the Panther Plot, and your knowledge of the local food system. These questions are voluntary and confidential. Your information and responses will be kept private.

Q2 Do you live on campus or off campus?

- ☐ On campus (1)
- ☐ Off campus (2)
-

Q3 Prior to today, were you aware that UNI has an on-campus garden (the Panther Plot)?

- ☐ Yes (1)
- ☐ No (2)
-

Display This Question:

If Q3 = Yes

Q4 Do you know where the Panther Plot is located?

- ☐ Yes (1)
- ☐ No (2)

Display This Question:

If Q4 = Yes

Q5 Have you ever been to the Panther Plot?

☐ Yes (1)

☐ No (2)

Display This Question:

If Q5 = Yes

Q6 Why did you visit the Panther Plot? Please select all that apply.

☐ Attended an event (1)

☐ Volunteered (2)

☐ Wanted to check it out (3)

☐ Just stumbled upon it (4)

☐ Other (please explain): (5) _____

Q7 Did you receive the three monthly newsletters from Spring 2019?

☐ Yes (1)

☐ No (2)

Skip To: Q13 If Q7 = No

Display This Question:

If Q7 = Yes

Q8 Did you read the newsletters?

- ☐ Yes, all 3 (1)
- ☐ Yes, 2 (2)
- ☐ Yes, 1 (3)
- ☐ No (4)

Skip To: Q13 If Q8 = No

Q9 How would you rate the following aspects of the newsletters?

Layout (1)					
Colors/Graphics (2)					
Usefulness of the content (3)					
Amount of information presented (4)					

Q10 What did you like best about the newsletters?

Q11 What did you like least about the newsletters?

Q12 Please list other topics you would have liked to have seen covered in the newsletters, if applicable.

Q13 Did you volunteer in the Panther Plot this semester?

☐ Yes (1)

☐ No (2)

Skip To: Q16 If Q13 = No

Q14 How many hours did you volunteer in the Panther Plot?

☐ 1 (1)

☐ 2 (2)

☐ 3 (3)

☐ 4+ (4)

Q15 What did you do while volunteering in the Panther Plot? Select all that apply.

☐ Pulled weeds (1)

☐ Harvested vegetables (2)

☐ Prepared the garden for winter (3)

☐ Other (please specify) (4) _____

Display This Question:

If Q13 = No

Q16 Please select your primary reason for not volunteering in the Panther Plot.

- ☐ I didn't know I could. (1)
- ☐ I didn't know how to. (2)
- ☐ I wasn't interested. (3)
- ☐ I didn't want to go alone. (4)
- ☐ I didn't have time. (5)

Q17 Please rank your knowledge of the following:

0 = Unfamiliar Very knowledgeable = 5




0 1 2 3 4 5

How to get involved with the Panther Plot (1)	
---	--

Q18 Please rank how familiar you are with each of these terms:

0 = Unfamiliar Very knowledgeable = 5

0 1 2 3 4 5

Local food systems (1)	
Gardening (2)	
Food system sustainability (3)	

Q19 How many servings of fruits and vegetables do you eat per day?

- ☐ None (1)
- ☐ 1-2 (2)
- ☐ 3-4 (3)
- ☐ 5-6 (4)
- ☐ 7+ (5)

Q20 How often are your food choices influenced by whether or not the product is grown locally?





- ☐ Often (1)
- ☐ Sometimes (2)
- ☐ Rarely (3)
- ☐ Never (4)

Q21 How much do you think each of the following impact your overall wellbeing?

0 = Not at all

A great deal = 5

0 1 2 3 4 5

Eating fruits and vegetables (1)	
Gardening (2)	
Choosing locally grown foods (3)	
Spending time outside (4)	

Q22 If you would like to know more about the Panther Plot, including ways to get involved, please leave your name and email address in the space below.

End of Block: Default Question Block
