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Benefits, Challenges, and Recommendations for Implementing a Sustainability-Based Service-Learning Program at Utah State University: An Initial Assessment of the Community Bridge Initiative

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BENEFITS, CHALLENGES, AND RECOMMENDATIONS FOR IMPLEMENTING A SUSTAINABILITY-BASED SERVICE-LEARNING PROGRAM AT UTAH STATE UNIVERSITY: AN INITIAL ASSESSMENT OF THE COMMUNITY BRIDGE INITIATIVE

By

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ABSTRACT

Benefits, Challenges, and Recommendations for Implementing a Sustainability-Based Service-Learning Program at Utah State University: An Initial Assessment of the Community Bridge Initiative

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As communities continue to face issues relating to sustainability and with students demanding more university courses focused on solving these issues, a program that works to address both factors could prove beneficial. Modeled after the University of Oregon's Sustainable Cities Initiative, the Community Bridge Initiative (CBI) at Utah State University aims to tackle specific community sustainability concerns by enlisting student and faculty expertise to create innovative ideas and provide increased capacity. While CBI is still in its pilot year, this thesis identified the benefits and challenges associated with the application of this program and provided recommendations to best implement this program once it leaves the pilot stage. Data were collected from a community needs assessment and from students enrolled in CBI pilot classes. The community needs assessment revealed that of 35 local organizations surveyed, 91% wanted to partner with USU in efforts to address current and future issues, showing that

CBI would have the needed community support should it choose to partner with local organizations on various issues. Organization needs included improving the communities of Cache Valley, educating the public about important issues and spreading awareness of their specific programs, and mitigating funding and physical resource issues. For partnerships, organizations were most interested in pairing with USU on education and volunteer initiatives and sustainability-based efforts. In regard to students enrolled in CBI courses, the program also gained student validation as 92% of the students reported that the class positively impacted them, 88% would take a CBI course again, 63% would list the experience on their resume, and 73% felt that the class was more effective in communicating course content in comparison to traditional USU courses. Following these results, full implementation of the CBI program at Utah State University is recommended.

(118 pages)

PUBLIC ABSTRACT

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Service-Learning is a method of teaching that allows students to learn course content by engaging in real world applications, which can enhance student learning and benefit communities. As populations increase, many communities struggle with the corresponding issues of sustainability. A program that could use student expertise to address these concerns would be beneficial for both students and communities. This mixed-methods study explored the benefits, challenges, and recommendations for implementing a sustainability-based service-learning program, the Community Bridge Initiative (CBI), at Utah State University (USU) in relation to community needs and student responses to being in program pilot classes. Pilot classes were assigned one community project and students used course content to address it. A community needs assessment indicated that most local organizations (91%) wanted to partner with USU on pressing issues and were willing to contribute to this partnership with various resources. The student survey showed that 92% of students were positively impacted by these courses and 73% reported that CBI classes were more effective in teaching course content compared to traditional university courses. Following these results, the CBI program should be fully implemented at USU.

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CHAPTER 1

INTRODUCTION

Environmental issues in Logan, Utah

Logan, Utah, which houses Utah State University, is a relatively small college town facing many environmental issues with its quickly growing population. As of 2012, the population was almost 49,000 (U.S. Census Bureau, 2014) and future population projections estimate that number to rise to 67,000 by 2020 and just over 100,000 by 2040 (Community Profile, n.d.). In addition to population levels, Logan's bowl-like valley and the tall surrounding mountains create the perfect environment for the accumulation of particulate matter (PM), often creating some of the worst air in the nation (Malek *et al.*, 2006). As air pollution is already a surmounting problem for the valley, the population forecast will only exacerbate the particulate matter levels, unless environmental change occurs.

Particulate matter pollution correlates with many health risks associated with PM exposure and is the 13th leading cause of mortality worldwide (Brook, 2008). In addition to air quality, the city also faces environmental issues pertaining to land use, traffic, waste disposal problems, and water pollution that will also be intensified with an increased population (Hunter and Toney, 2005). Despite these problems, the city has been slow in implementing sustainability measures. As an example, because of Logan City's delay in addressing air quality issues following its national listing as a nonattainment area, measures such as city-wide car emission checks were enforced externally by the Environmental Protection Agency (Anderson, 2013).

University-city disconnect

In addition to environmental issues, Logan Mayor Craig Peterson has voiced concerns about the gap between the university and the city and the need for an increased connection between the two. The mayor recently stated that "I think historically, there's been far too much separation between the city and the university… So I think it's critical we have a close relationship, and I think in the past it was too much 'the university on the hill' and 'the city down here'" (Opsahl and Stewart, 2015).

Many authors have voiced concern regarding the ongoing disconnect between universities and communities (Kysiak, 1986; Ruffins, 2002; K. Stephens, personal communication, 2014). Historically, universities were often established in rural areas, with ideals of being separate from common society (Martin *et al.*, 2005). However, as communities expanded, universities often found themselves in urban environments. "The response of many universities to encroaching urbanization was to build higher walls and stronger gates in an attempt to maintain a separation from their surrounding communities. The time period between 1914 and the late 1980's is best described as the 'Ivory Tower' period of American higher education" (Martin *et al.*, 2005). In a description of this problem, one author stated "although universities bring great prestige to a community, many citizens perceive them solely as large, powerful, non-taxpaying entities that soak up city services and provide little in return" (Kysiak, 1986). This problem was further reiterated in an article focusing on strained relationships between universities and communities, which stated "most, if not all, towns contend with the competing value of an elevated reputation and recognition derived from being home to a university versus the perceived cost affiliated with goals related to increased enrollment and construction

plans" (Taylor, 2005). Given that this is a far-reaching problem, universities would benefit in attempting to strengthen the communities in which they are placed.

In light of this community-university gap, Utah State University's Center for Civic Engagement and Service-Learning (CCESL) and the City of Logan decided to team up to address issues pertaining to sustainability while employing the abundantly available student and faculty expertise at Utah State University (USU). Creating a sustainability-based service-learning program that works within the university and community would formalize ties between the school and the city in its sustainability efforts and work to bridge the gap between the two.

University of Oregon's Sustainable Cities Initiative

One such program that addresses the disconnect between the city and the university experience is the Sustainable Cities Initiative (SCI). First implemented in 2012 at the University of Oregon, SCI is a nationally recognized program that has been quoted "as one of higher education's most successful and comprehensive service-learning programs" and a provider of a "meaningful and marketable outlet for the energy and talents of hundreds of students in tens of thousands of hours of work per year" (Carlson, 2013). The Sustainable Cities Initiative has been very successful both in addressing environmental issues and creating partnerships between multiple cities and the university. This relatively new program uses the same approach of the standard service-learning framework, but focuses specifically on community sustainability-related issues and integration of several courses in addressing these issues. The Sustainable Cities Initiative (SCI) is a multidisciplinary program that works with a specific city each year by pairing

it with “more than 25 university courses, allowing students to work on real world sustainability-based projects” (Carlson, 2013). The city pays a fee to be involved in this program and in return, more than 500 students a year take on environmental projects to help design and implement more sustainable solutions for that community. Fifteen different academic departments are incorporated including architecture, engineering, business, planning, policy and management, journalism, etc. Past partner cities in Oregon have included Gresham, Salem, Springfield, Lane Transit District/Springfield, and Medford; SCI just finished its sixth year in 2015 with Redmond. Past projects have included sustainable designs for new government buildings, designing sustainable and affordable streetlights, community forums on climate change, bicycle and pedestrian accessibility plans, and many others.

The Sustainable Cities Initiative allows for a multitude of benefits relating to students, faculty, the university, and cities they partner with. First and foremost, SCI projects allow students to gain real world experience within their education. By working on real-life projects directly related to their future careers, students are much better prepared to enter the workforce (Larco, 2015b). The Sustainable Cities Initiative also gives students the opportunity to “directly interact with clients and city officials firsthand and having that experience early on is a great opportunity” (Larco, 2015b). As a result, SCI found that students would often list these experiences on their professional resumes. SCI also found that students were more motivated by SCI projects as the work they did had the possibility of effecting real change within the communities that they worked with. Consequently, students also better understand how they can become agents of change

within communities and can see how their work has a direct influence on community well-being (Larco, 2015b).

Benefits are also relevant for faculty and universities involved with an SCI-type program. First, the program was very easy to implement by faculty. Administrators for SCI are in charge of bringing clients and projects to the faculty member so minimal work was needed to get the project moving. Faculty were also given a means in which to transform their theoretical knowledge into real life applications. SCI co-founders saw that students were demanding more application-based classes, so giving faculty opportunities to teach in that manner allowed them to become better instructors (Schlossberg, 2015). Another benefit noticed was that faculty were given networking opportunities, both with other faculty in multi-disciplinary projects and with the clients they were assigned to. This allowed faculty to form relationships beyond the classroom and gave them more opportunities to meet other faculty with similar ideals. This in turn benefitted the universities by "putting the public back into public universities" (Schlossberg, 2015).

Cities first benefit from this partnership simply with the increased capacity that it gives to their workforce. Having hundreds of students working on one project provides a real boon to project possibilities and solutions. SCI also benefits the city it partners with by allowing cities to deal with sustainability issues at a reduced cost. For example, in 2010, SCI charged the city of Salem just over $300,000 to have 500 students in 10 different disciplines work on 16 projects that would have cost $12 million if they had been done by consultants alone (Carlson, 2013). This program has also benefitted the city by granting city officials access to ideas from students who don't have the preconceived notions that city officials often do, permitting a fresh outlook on problem solving

(Carlson, 2013). One great benefit is that a city partnership with university students provides positive press for everyone involved (Larco, 2015a). Getting different entities within communities working together is a great way to bridge gaps and create more working relationships.

Because the term "sustainability," a key word in SCI, is very broad, projects have included many environmental initiatives as well as a wide array of efforts related to quality of life and the improvement of community areas. SCI co-founders Nico Larco and Marc Schlossberg have expressed that their definition of sustainability is purposefully vague in order to expand the scope of SCI, though projects still need to have reasonable relation to sustainability (Larco and Schlossberg, 2014).

Universities that have implemented programs similar to SCI

As of 2015, 10 universities have successfully implemented sustainability-based service-learning programs modeled after SCI on their campuses, and more are either currently establishing or planning to establish similar programs. The following list shows the chronological order of universities that have adopted the SCI program:

University of Minnesota

The University of Minnesota established their SCI-adapted program in 2012, called the Resilient Communities Project, or RCP. Modeled closely after SCI, RCP pairs with a different city each year with the goal to "find sustainability solutions to issues facing our communities, by connecting the wide-ranging expertise of U of M faculty and students with cities, businesses, and organizations in Minnesota" (University of Minnesota, 2015). So far, RCP has had 3 partner years, pairing with Minnetonka, North

St. Paul, Rosemount, and just finished partnering with Carver County. Past projects have included green roofs and rooftop gardens, youth wellness projects, and environmental education initiatives.

University of Iowa

With its goal "to enhance the capacity of Iowa's communities to be more sustainable" (University of Iowa, 2015a), the Iowa Initiative for Sustainable Communities (IISC) was one of the first universities to start partnering with cities as their first partnership coincided with the University of Oregon's in the fall of 2009. IISC has actually partnered with multiple cities within one year including Wellman, Decorah, Louisa County, Anamosa, Oskaloosa, Charles City, Burlington, Dubuque, Muscatine, Washington, Cedar Rapids, and is currently partnering with Decorah and Winneshiek County, Iowa City, and Sioux City (University of Iowa, 2015b). Past projects have included community branding, renewable energy asset maps, and environmental impacts of the city's waste hauling system.

San Diego State University

So titled the Sage Project, San Diego State University partnered with local governments to work on projects within in the community that "address their smart growth, quality of life, and sustainability goals" (San Diego State University, 2015). Implemented in the fall of 2013, the Sage Project has so far partnered with National City to alleviate various community issues. Projects have included renewable energy initiatives, city beautification efforts, and improved community access to fresh food.

Penn State University

First implemented in 2013, the Sustainable Communities Collaborative (SCC) was "developed to engage PSU faculty and students in existing courses from across the University with real world, community-identified projects to meet the partnering community's sustainability priorities" (Penn State, 2015). Starting its pilot year and continuing today, SCC has partnered with the State College Borough where 70% of residents are Penn State university students in order to make the community more environmentally-friendly. Projects have included alternative energy initiatives, residential composting surveys, and promotion of local food systems.

Earlham College

Earlham College's program, the Richmond Sustainable Communities Initiative, created their initiative in 2013 to be a multi-year sole partnership with the city of Richmond (Earlham College, 2015). Their mission is "to connect courses at Earlham to city-identified sustainability research projects in the community with benefits for the City and the College" (Earlham College, 2015). Their definition of sustainability is also broad and targets projects relating to quality of life, community connections, participation in local government, and environmental initiatives (Earlham College, 2015). Projects have included revitalization of Richmond's Farmers Market, water quality analysis, and strategic social media planning.

University of Texas at Austin

The University of Texas titled their sustainability program as Texas CityLab (TCL) where they follow the conventional model of pairing with one city each year.

Initiated in 2013, TCL "results in sustainability progress for communities, meaningful learning and professional development for students, and an opportunity for faculty to link classroom work to life outside the university" (University of Texas at Austin, 2015). Projects have included stormwater management, efficient transportation, and affordable housing.

Texas A&M

While already helping lower-income communities, the Texas Target Communities (TTC) of Texas A&M University expanded their role in 2013 after learning of the success of SCI. This expansion involved a transition "from short-term, independent projects focused on land use planning and design to more long-term, integrated efforts addressing the full spectrum of challenges (i.e., civic, environmental, economic, etc.) encountered by communities today" (Texas A&M University). In addition, TTC partnered with AgriLife Extension, an education agency that addresses local agricultural need, "to improve the lives of people as well as the health of businesses and communities across Texas" (Texas A&M University, 2015). Partnerships have included La Grange, Hidalgo, and Jonestown, and the program is currently partnering with Nolanville and Dickinson. Projects have included a transportation plan, a housing needs study, and plans for future growth.

University of Tennessee

Piloted in 2014, the University of Tennessee chose the name of Smart Communities Initiative with the city of Cleveland, TN as their first partner. The Smart Communities Initiative "is founded upon the idea that universities and communities

should work together to improve the health and vitality of their areas" (University of Tennessee, 2015). Projects have included bus shelter and design, a brownfield redevelopment plan, and water quality mapping.

University of Maryland

The Partnership for Action Learning in Sustainability (PALS) was established in 2014 with the mission of providing a "campus-wide initiative that harnesses the expertise of University of Maryland faculty and the energy and ingenuity of students to help Maryland communities become more environmentally, economically, and socially sustainable" (University of Maryland, 2015). Partnering with the city of Frederick, PALS took on 30 projects for their 2014-2015 pilot year such as climate change impacts, engaging minority communities, and invasive species.

Augustana College

Augustana College's program, Sustainable Working Landscapes Initiative (SWLI), includes the mission, "to connect existing faculty/staff and courses to real-world sustainability problems identified by community partners" (Augustana College, 2015). Like Earlham College, SWLI "defines sustainability broadly and is interested in assisting community partners to tackle social, economic, and environmental sustainability problems" (Augustana College, 2015). For its pilot year in 2014, SWLI partnered with the county of Rock Island on a sustainable urban watersheds study.

Universities currently implementing or planning to implement programs

The University of Connecticut, Arizona State University, and the University of Colorado, Denver are implementing their own sustainability-based service-learning programs for the 2015-2016 school year. Universities about to launch programs based off of SCI include California State University, Chico, University of Maine, Iowa State University, University of North Carolina, Greensboro, College of New Jersey, Technion Israel Institute of Technology, California State University, Monterey Bay, and CUNY Hunter College.

Utah State University's Community Bridge Initiative

Following the large success and nationwide adoption of SCI, Utah State University decided to implement a similar program with its pilot year running from January to December of 2015. Given the unique values of Cache Valley's population, the Center for Civic Engagement and Service-Learning chose to name the trial SCI initiative for USU "Community Bridge Initiative" (CBI). This name was chosen because it focused more on the community aspect rather than associating with the potentially loaded term 'sustainability' and is self-described as "a place-based service-learning model that enables students to utilize knowledge obtained in the classroom to tackle real-world problems identified by the community" (Utah State University, 2015). In response to the need to bridge the gap between the city and the university, Mayor Craig Petersen endorsed the project and requested city departments to come up with feasible projects that could easily be paired with USU courses. As a result, for its pilot semester in spring

2015, seven USU courses were set up for partnership with Logan City within the CBI program with more in line for the following fall pilot semester. While seven were piloted, the four major courses will be the focus of this research. These courses spanned the Colleges of Humanities and Social Sciences and Natural Resources and focused entirely on projects identified by the City of Logan including a neighborhood improvement survey, measures to enhance air quality, GIS story maps, and a city-wide tree trimming project.

Challenges and adaptations of implementing CBI at USU

Implementation of a similar program at USU would allow students to work with community partners to address local environmental and social sustainability issues. The scope of this initiative would be to address the communities in Cache Valley and specifically Logan where USU is located. Though there are many benefits to this program, there may be some challenges unique to Logan in comparison to Eugene, Oregon where the Sustainable Cities Initiative was first implemented. As it stands now, CBI has not encountered any major challenges in its first pilot semester. However, if the Center for Civic Engagement and Service-Learning would like to spread more awareness of the program within the communities of Cache Valley, the program might need to be formatted in a way to better embrace local culture.

Logan's population has a large percentage of residents who are religious, particularly Latter-Day Saints (LDS), while Oregon is notable for being one of the U.S. states with the "highest proportion of religiously-unaffiliated and self-identified 'nonreligious' residents" (Religion in Oregon, 2002). Seventeen percent of residents in

Oregon classify themselves as nonreligious compared to the U.S. average of 7% (Religion in Oregon, 2013). “When religiosity alone was examined, religious individuals were less likely than nonreligious individuals to support additional federal spending to protect the environment” (Brehm and Eisenhauer, 2006). From this statement, it would seem that Oregon would be predisposed to fund environmental issues and that Logan is already at a disadvantage when taking on environmental issues. Given this information, instead of charging the city to be involved like SCI, USU’s program might be better implemented with a no- or low-cost option. As of now, CBI has chosen not to charge the city a fee to be involved, but if that changes in the future, socialization will be a major factor when attempting to recreate an environmental program in Utah. To address these issues, CBI has focused on social service-oriented projects instead of just focusing on issues related to sustainability.

Despite the above statement regarding religious aversion to funding environmental initiatives, it was also found that “Mormons tended to express greater levels of environmental concern than the general population” (Brehm and Eisenhauer, 2006). In a webpage released by the Mormon church in 2012, religious leaders expressed the need for members to be “stewards” of the earth, and not “owners,” where “approaches to the environment must be prudent, realistic, balanced and consistent with the needs of the earth and of current and future generations, rather than pursuing the immediate vindication of personal desires or avowed rights” (The Church of Jesus Christ of Latter-Day Saints, 2012). At the end of Brehm and Eisenhauer's (2006) report, the authors concluded that “the less that land use policy or management plans are linked to conservation of basic community health or identity and are viewed as more purely

preservationist, the more likely it is that resistance may emerge along religious lines" (Brehm and Eisenhauer, 2006, p. 407).

Consequently, message framing will be vital in trying to sell this idea to the community of Logan in order to tap into those "greater levels of environmental concern" (Brehm and Eisenhauer, 2006), meaning that CCESL will need to market the program in accordance with local cultural values. However, if the program requires a fee similar to SCI, it may be difficult to convince city officials to pay. It will be essential to show that this effort will be involved in the enhancement of community health and it may also be beneficial to show that this initiative will protect local identity by tying in similar values (Stafford and Hartman, 2012). For example, a recent wind power initiative in Utah helped alleviate citizen concerns about large turbines being erected in their community by showing that property taxes from these wind farms would mainly go to local school districts, directly benefitting citizens' children (Stafford and Hartman, 2012). In this example, it was shown that "developers and supporters need to listen for broader community needs and values to identify compelling ways to frame benefits" (Stafford and Hartman, 2012). Following this illustration, trying to mitigate local environmental issues would most likely be more effective if the argument is framed around benefits for Logan's children (Stafford and Hartman, 2012). Putting environmental concerns in these terms will be a much more effective method than pushing for sustainability for sustainability's sake (Brehm and Eisenhauer, 2006).

In addition to religious differences, Utah State University's student demographics differ in some areas compared to a typical university population. Many students at USU are working full-time while attending school; many are also married with families to

support. While SCI is formulated to expand into other communities giving students the opportunity to work in other areas, USU's students may be unable or unwilling to travel long distances to work on class projects because of these responsibilities. Additional project time requirements may also be hard for students to handle given these limits, so implementation of this program would need to make allowances for these student factors and perhaps curtail certain aspects of the project. However, USU's CBI could act as a flagship program showing other Utah universities how best to implement a sustainability-based service-learning program that could address community issues in an integrated manner.

Despite these challenges, CBI has the potential to create actual change within the community of Logan with a variety of benefits as it continues to expand. In reference to the impacts found at other universities, it is speculated that implementation of the CBI program at Utah State University will have the following outcomes (Utah State University, 2015):

1) The connection between Utah State University and the communities in Cache Valley will be strengthened through mutually beneficial partnerships.
2) Students will gain valuable, real-world experience that they can use for future careers.
3) Communities will benefit from student participation on needed projects.

In addition to these benefits, this program will also help boost USU President Stan Albrecht's climate commitment by instilling sustainability throughout the curriculum (Albrecht, 2007). As stated in the American College & University Presidents Climate Commitment, "campuses that address the climate challenge by reducing global warming

emissions and by integrating sustainability into their curriculum will better serve their students and meet their social mandate to help create a thriving, ethical and civil society" (Albrecht, 2007). With its mission to tackle community sustainability issues with both students and faculty, CBI is poised to fully embody this goal. USU Provost Noelle Crockett summarized this project well by stating, "We have the expertise, so why not contribute to the community where we all live? That's at the heart of making Cache Valley stronger" (Opsahl and Stewart, 2015).

Thesis purpose and research question

This research is application-based as it investigates the need for a sustainability-based service-learning program in Logan while illuminating the immediate and future needs of organizations within the community and their willingness to be a part of the CBI program. This thesis will also focus on student reactions to CBI pilot courses compared to traditional USU courses and provide suggestions for the program once it leaves the pilot stage. Having this background information will allow USU's Center for Civic Engagement and Service-Learning to identify potential strengths and shortcomings before full implementation, giving the program the best environment in which to succeed. This research is directed by the following research questions:

Overall research question

1) Given the unique needs, priorities, and values of the Logan community, will the University of Oregon's Sustainable Cities Initiative (SCI) model also work at Utah State University?

Community partner survey

1) What are the highest priority issues your organization is currently addressing?
2) What issues does your organization expect to face in the next 5 years?
3) Are you interested in partnering with USU students and faculty to work on issues or projects within your organization?
4) If so, what would you like to work on together (reduced energy use, education, urban planning, local food sourcing, etc.)?
5) Given that this would be a partnership, what resources could you and your organization provide (office space, mileage reimbursement, internships, etc.)?

Student survey

1) Did this class positively impact you?
2) Would you take a Community Bridge Initiative class again?
3) Would you list this experience on your resume for future employment?
4) Do you feel that this class was more effective in communicating course content in comparison to traditional USU classes?

Thesis structure

This thesis is prepared in a multi-paper format. Chapters 2 and 3 have been written for publication and show insights into the community needs and student reactions to the CBI program. Data for Chapter 2 was collected during the fall of 2014 and data for Chapter 3 was collected the spring of 2015. Chapter 1 provides an overview of the Sustainable Cities Initiative and brief summaries of universities that have already adopted this program, while also explaining why Utah State University would benefit from such a

program. Chapter 2 addresses data collected from community partners within Cache Valley. Open and axial coding is primarily used to detail what issues organizations are facing and what they would like out of a partnership with Utah State University. Chapter 3 offers data amassed from students enrolled in pilot CBI courses. Descriptive statistics and open and axial coding show benefits gained and other reactions to a CBI class in comparison to traditional university courses. Chapter 4 offers a subjective viewpoint on the strengths and weaknesses of the CBI program in reference to a specific pilot course while ending with recommendations and conclusions for the overall thesis.

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CHAPTER 2

ASSESSING COMMUNITY NEED AND INTEREST TO ADDRESS CITY-WIDE SUSTAINABILITY ISSUES: A TRI-PART COLLABORATION BETWEEN LOCAL CITY GOVERNMENT, COMMUNITY PARTNERS, AND A UNIVERSITY[1]

Abstract

This article highlights results of a needs assessment gauging extension of a university sustainability-based service-learning program on a community-wide scale. A drop-off survey (response rate = 88%) was administered to selected community organizations (n = 40) within five different disciplines ranging from natural resources to engineering in Logan, UT. Results revealed that the majority (91%) of community organizations surveyed desired a working partnership with the university in relation to current and future issues they are facing. While the survey population sample was purposely small to gain a general background of partnership possibilities among major community organizations, the results in this article provide insight into major community concerns and how a coordinated, cross-disciplined service-learning program would be beneficial in addressing these issues.

Introduction

Like many communities across the nation, Logan, Utah faces various environmental issues such as increasing population, poor air quality, waste disposal, among others.[1] In consideration of growing local environmental issues, creating a sustainability-based, multi-disciplinary program that formalizes collaboration between

[1] This manuscript was co-authored by Julie Koldewyn and Dr. Roslynn Brain

the university and community would help streamline local sustainability efforts. In addition, a program that could address these issues would be extremely beneficial for both permanent and student residents of Cache Valley. One method in which to address these issues is service-learning, which is an educational approach that allows the learner to employ community service in an effort to better understand course content in real-life settings as it "enriches the learning experience, teaches civic responsibility, and strengthens communities."[2] With a service-learning program already established at Utah State University (USU) and a large college student population, USU provides the perfect combination of education and service necessary to combat these environmental problems.

Established in 2008, USU's Service-Learning Scholars program states that students involved in service-learning should be "making a difference in their community, combining service with academic course work, enhancing learning through experience, and creating sustainable change in the form of a capstone project".[3] Though service-learning was already well-utilized within many USU university courses, this program formalization allowed service-learning to expand into other colleges and courses within the university and brought greater recognition to the applications and opportunities of service-learning. From 2005 to 2012, student enrollment in service-learning courses increased from almost 400 students to over 1,100 students per semester (R. Schmidt, personal communication, 2015). In 2013, USU's service-learning program was adopted into USU's Center for Civic-Engagement and Service-Learning (CCESL), which housed additional student services such as a bike sharing program, the student sustainability office, and others. With this new adoption, "CCESL has become the campus hub for community engagement, providing greater institutional vision and direction."[4] In

conjunction with service-learning, USU was recently recognized by Purposeful Networks, an organization that creates "digital platforms and programs to support significant positive impact around the world,"[5] with a Silver Level Student Actions Award for the 2015 Spring Semester, which "honors undergraduate schools for demonstrated student leadership, momentum and engagement in activities that positively impact our communities and our planet" (R. Brain, personal communication, 2015). Action-oriented change is clearly a priority for USU students.

Service in general is a prevalent culture among USU students as well as the population of Utah. Compared to other Utah universities, Utah State University has the highest number of students enrolled in Americorps positions (K. Stephens, personal communication, 2015), which provides "intensive service each year at nonprofits, schools, public agencies, and community and faith-based groups across the country."[6] Additionally, in a Gallup poll administered in 2014, Utah was the highest ranking state for reported charitable giving, both in donated money and time.[7] This may be attributed to the dominant religion in the state of Utah, The Church of Jesus Christ of Latter-Day Saints, which highly emphasizes acts of service and solicits monetary donations for religious tithing and welfare initiatives.[8] Regardless, the population of Utah is accustomed to service and in light of this environment, a service-based sustainability program may be well-received and easily established providing the topics addressed match local values.

In light of the environmental issues that Logan faces, CCESL, along with several campus faculty members, have identified both disparity and potential opportunities for enhanced cohesiveness between service projects offered by university classes to the

community (K. Stephens, personal communication, 2014). Sustainability-related service projects are an area where cohesiveness could result in larger positive community impacts. Following the model set forth by the University of Oregon's Sustainable Cities Initiative, CCESL has implemented a pilot program to help address sustainability issues, called Community Bridge Initiative or CBI. In its pilot stage, with support from the Logan City Council and Logan City mayor, Craig Peterson, CBI paired high priority city identified projects with university courses. In this initiative, university students would work on designated community needs as part of their coursework in a formal partnership with the city. Although CBI is being piloted to address needs of Logan City's government, this study investigated the needs of independent, locally-owned Cache Valley organizations, issues they expect to face in the future, and major focal areas for the CBI program for years to come. Multiple needs assessments have recently been done within this area, with the most notable being a community survey performed by Envision Utah. Launched in 2013, Envision Utah administered a survey that asked Utahans to determine how they wanted the future of Utah to look like according to 11 different study areas including agriculture, air quality, disaster resilience, education, energy, housing and cost of living, jobs and economy, public lands, recreation, transportation and communities, and water.[9] While Envision Utah was a much more extensive and broad study, the purpose of this research was to gain a more general sense of what potential community partners in Logan were most interested in. Understanding the basics of these organizations will help determine if they are good matches for the CBI program in the future, provide helpful data on what types of organizations are most interested, and most importantly show what issues are most important to the community in addition to the

city's needs. As a result, this study analyzes the need, interest, and recommended design for community involvement in the CBI program with Utah State University.

Methods

The research participants were purposefully chosen by the Center for Civic Engagement and Service-Learning at Utah State University which included major non-profit organizations, religious groups, schools, local businesses, and government officials within Cache Valley, Utah. While the pilot program is already partnering with city officials, the government officials targeted here were included in order to compare the city's perspective to those of the other community partners chosen. The non-profit organizations chosen were further divided into four categories which included environmental organizations, social justice organizations, health/ability organizations, and youth/education organizations. Five participants from each group were selected resulting in a total of 40 participants. Since the program would pair a USU course with a specific environmental problem within the community, this specific survey audience was selected because they would ideally be directly involved with a myriad of sustainability-related issues within Cache Valley. While some of the selected organizations were already in partnerships or had participated in past projects with the university, these organizations were chosen specifically to determine whether they would be interested in pairing with USU on CBI.

This study was exploratory in nature, assessing community needs. As such, no hypothesis was formed. A mixed methods descriptive survey with quantitative and qualitative questions was designed via insight from the Center for Civic Engagement and Service-Learning, professors from the Department of Environment and Society in the

College of Natural Resources, and the dean from the College of Humanities and Social Sciences. The geographic location for the survey was restricted to Cache Valley since that is where the initiative is being established. The survey included some binary response options, but primarily incorporated in-depth and open-ended questions. The survey was designed to garner basic organizational information about the community partners, learn what issues the organizations face, and determine whether community partners would like to be involved in a partnership with USU. An introductory call or email to community partners was made beforehand to briefly explain the project and survey and once the respondent agreed to participate, an introductory letter was sent out. The survey was dropped off at each organization in order to increase the response rate by being able to communicate the importance of the survey through face-to-face interaction.[10] To ensure respondents received their surveys and to schedule a pick-up time, a follow-up call was performed a couple days later. If needed, multiple calls were made to politely check on the status of the survey to ensure that the survey would be completed. The surveys were picked up one to three weeks later, depending on the availability of the organization. Of the 40 participants selected, 35 responded and returned their surveys, resulting in an 88% response rate.

The open-ended questions were transcribed verbatim. To analyze the quantitative and qualitative data, basic analysis methods were used, including descriptive statistics and open and axial coding. Following procedures outlined by Hatch (2002)[11], open coding was done by first reading through each survey to gain a general sense of the data included. Each survey was read within the context of the group in which it was placed in in order to initially find specific patterns for that exact group. The patterns found in each

specific group were then compared to the survey respondents as a whole. For example, the social justice non-profit organization was compared to all non-profit organizations, religious groups, schools, local businesses, and government officials. During this process, memos were recorded in response to the impressions made in each text segment, forming codes. After open codes were found for each group, axial coding was performed by examining the open codes within each group and comparing them to the codes as whole for the entire survey population to determine relationships and general patterns. An analysis report was then written summarizing the interpretations that were found.

Results

Again, of the 40 participants selected, 35 responded and returned their surveys resulting in a response rate of 88%. Of the groups selected (major non-profit organizations, religious groups, schools, local businesses, and government officials within Cache Valley), non-profit organizations and schools had the highest response rates (100%), suggesting that these organizations were likely the most willing to form a partnership with USU and perhaps those that would benefit most from a partnership. As a lack of funding was a common thread among these groups, it would likely stand that these organizations would benefit from any outside partnership possible to further their organizational goals. Religious organizations had a response rate of 80%. (Religious Group #1 was the only group that chose not to participate as the respondent was not interested. Other church leaders from this group were not approached as they were lay ministers instead of paid professionals.) The groups that had the least amount of respondents were local for-profit businesses and government officials with a response rate of 60%. While it is difficult to speculate on the reasons for any unreturned surveys

on such a small sample size, it might be likely that businesses had a lower incentive for pairing with USU since they were established successful organizations that may benefit the least from a USU partnership.

The survey was split into varying sections with a total of 15 questions focusing on basic organization information, how they operate, their interest in paring with USU, and fundamental logistics. While each question will be important for future logistics in possible USU partnerships, the results from five specific questions will be the focus of this study as these questions provided the most generalizable information. The five questions include:

1) What are the highest priority issues your organization is currently addressing?
2) What issues does your organization expect to face in the next 5 years?
3) Are you interested in partnering with USU students and faculty to work on issues or projects within your organization?
4) If so, what would you like to work on together (reduced energy use, education, urban planning, local food sourcing, etc.)?
5) Given that this would be a partnership, what resources could you and your organization provide (office space, mileage reimbursement, internships, etc.)?

In addressing the first question, "What are the highest priority issues your organization is currently addressing?" answers were understandably skewed according to the organization answering. However, there were themes that emerged from the responses. One such theme that arose was that many organizations are concerned with improving the community and social justice initiatives. Select respondent quotes for this theme are as follows:

- "One of our highest priorities that we are working on currently is getting youth with disabilities involved in outdoor recreation."
- "Assisting people to find jobs that are a good fit for them – to help them become self-reliant"
- "Training Spanish-speaking to take leadership"

Another theme that emerged was education and program awareness, which often coincided with community and resident improvement. For example, one organization's goal of "providing high-quality educational services to people of ALL nationalities" could easily be argued to promote both education and community improvement. Some examples of this theme are listed below:

- "Prioritizing education on water use"
- "Providing primary prevention education in the middle and high schools"
- "Increasing the attendance of our programs"

The final theme that materialized from the respondents from the question addressing highest priority issues was funding and physical resources. Understandably, these concerns were primarily expressed by the non-profit organizations. Select respondent quotes for this theme are listed below:

- "Building our annual budget through planned giving and endowment"
- "Building issues – our building has numerous problems due to age…"
- "To get the ReStore established and to purchase a property to begin construction on our next Habitat home"

For the next question, "What issues does your organization expect to face within the next five years?" it was found that organizations were overwhelmingly concerned

with securing sufficient funding and resources to accomplish their goals. Specific quotes from this theme are as follows:

- "Continued need for expanded financial support as the need for services increases"
- "Ongoing funding is always an issue."
- "Possible relocation or remodel of our existing facility"

In conjunction with funding, growth and changing demographics were just as prevalent among the respondents' answers. Select quotes are listed below:

- "Growth of community and providing services for them"
- "Reaching minority populations"
- "With the growth in the valley, we are concerned about increase demand as well as capacity to store increased donations."

For the third question, "Are you interested in partnering with USU students and faculty to work on issues or projects within your organization?" 32 of the 35 (91%) responded with a "yes." There were two "maybe" responses (6%) and one "no" response (3%) showing that most organizations were willing to partner with USU whether or not they already had an established partnership with the university. The only "no" response was from Business #5 who had already partnered with USU on various work study projects. Whether this was an error on their part in filling out the survey or whether they were genuinely uninterested in pairing with USU on this project is uncertain.

Finally, when asking organizations what they'd like help with from the university, the responses showed that organizations were primarily interested in public education about the programs they offered which also included volunteer projects to further their

initiatives. Organizations were also interested in sustainability-based projects either to make their organizations more energy-efficient or to help alleviate local environmental issues. In regard to the question asking what organizations could offer in return for a partnership, internships and educational opportunities for volunteers was a primary answer. Physical resources such as office or class space and mileage reimbursement were also common answers. More in-depth details from these two questions are illustrated in Tables 2-1 and 2-2.

Following the results of these open codes, axial codes were interpreted to determine the overlying themes from these organizations. Though similar to what was expressed above from the open codes, the axial codes emphasize the results and summarize the open codes to show what organizations are facing now, what they will face in the future, what they'd like to work on with the university, and what they can offer in return. Tables 2-3 through 2-6 demonstrate the axial codes determined from the open codes.

With such a wide variety of organizations surveyed, gaining generalized responses was a concern. However, open and axial coding provided definite trends and relationships in the assessed data. Even though each organization differed considerably, in assessing what issues each organization was facing, three major trends emerged: promoting the general well-being of Cache Valley, funding and physical resources, and generating organization awareness and educating the community about important issues. The issues organizations are anticipating within the next five years are also summarized as: funding to develop growth and changing demographics and personnel. For organizations wishing to partner with the university, two specific themes materialized:

Table 2-1. Open codes for desired community partner projects

Research Question #4: If so, what would you like to work on together (reduced energy use, education, urban planning, local food sourcing, etc.)?

Organizations	Open Code	Specific Collaborative Ideas from Participants
Health/Ability	Education	Advocacy for people with disabilities Local food sourcing
	Volunteerism	Outdoor recreation and volunteerism
Environmental	Education	Grants for educational programming Naturalists for programs Use a USU intern
	Volunteerism	Advertising off-campus events on campus Student volunteers for stewardship projects Education for homeowner water use
Youth/Education	Programming	Events for patrons Program for supporting Latino youth Volunteer classroom aids
Social Justice	Education	Helping people become self-reliant Gardening Awareness activities Urban planning, landscape architecture, green initiatives
City Leaders	Sustainability	Alternative energy Neighborhood sustainability Urban planning Air quality
	Transportation	Reduced vehicle miles Transportation
Businesses	Waste reduction	Lean manufacturing Environmental engineering
Religious Organizations	Sustainability	Reduced energy use Urban planning Solar power Sustainable landscapes
Schools	Education	Education and role modeling Parenting skills Help our Spanish-speaking students Banking/financial help or families

Table 2-2. Open codes for possible partnership contributions

Research Question #5: Given that this would be a partnership, what resources could you and your organization provide office space, mileage reimbursement, internships, etc.)?

Organizations	Open Code	Summarized Points of What Participants could Provide in a Collaboration
Health/Ability	Internships	Student employment or paid practicums Would consider internships Internships
Environmental	Internships/Education	Knowledgeable staff Make an intern position feasible Programming Internships, projects Class credit Possible career
	Physical Resources	Mileage reimbursement Office space for meetings Building rentals
Youth/Education	Internships	Internships
	Physical Resources	Office space Display space System in place for marketing
Social Justice	Internships/Education	Internships (not paid) Access to families for counseling Collaborative work environment
	Physical Resources	Office space Mileage reimbursement Staff and volunteers to help Resources from our Restore People with whom to work
City Leaders	Internships	Internships Membership on committees
	Funding	Money for final reports Funds
Businesses	Resources	Teaching Office space Internships possibly

Religious Organizations	Physical Locations	Office space Building use Meeting spaces and classrooms
Schools	Internships Physical Locations	Internships and volunteer opportunities Internships Space and a captive audience Classroom space

Table 2-3. Open and axial codes for current organization concerns

Research Question #1: What are the highest priority issues your organization is currently addressing?

Open Codes	Axial Codes
Improving quality of life City improvement Community involvement Spirituality Social Justice Services	Organizations are primarily concerned with helping the community at large
Resources/funding Physical upkeep/funding Resources Workforce issues	Funding and physical resources are also a major concern
Education Organization and program awareness Education/awareness	Generating awareness and educating the community is a priority

Table 2-4. Open and axial codes for future organization concerns

Research Question #2: What issues does your organization expect to face in the next 5 years?

Open Codes	Axial Codes
Availability of resources Funding/Resources Funding Accommodation Facility development Growth	Funding to develop growth is a top priority for the future of organizations
Demographics Change	Changing demographics and personnel is an upcoming issue for organizations

Table 2-5. Open and axial codes for desired community partner projects

Research Question #4: If so, what would you like to work on together (reduced energy use, education, urban planning, local food sourcing, etc.)?

Open Codes	Axial Codes
Education/volunteerism Education	Education is a focal point for partnerships
Sustainability Transportation Waste reduction	Organizations are also interested in sustainability-based initiatives

Table 2-6. Open and axial codes for possible partnership contributions

Research Question #5: Given that this would be a partnership, what resources could you and your organization provide (office space, mileage reimbursement, internships, etc.)?

Open Codes	Axial Codes
Internships Internships/Education	Internship and education opportunities are prevalent within organizations
Physical Resources Funding Resources Physical Locations Space	Physical resources are also widely available

education and sustainability-based initiatives. Finally, in assessing what these organizations could offer in return for a partnership, two major proposals were suggested: internships and educational opportunities and physical resources such as funding, office space, and mileage reimbursement.

Applications for the Community of Cache Valley and Beyond

All organizations surveyed were interested in improving the community of Cache Valley. However, having the funds and awareness to do so was a listed major challenge. Likewise, upcoming organization issues revealed similar difficulties in accomplishing their goals. Project ideas were prevalent to combat these issues and, surprisingly, sustainability-based projects were a major theme, including both environmental and social justice projects. Specific examples of sustainability-based project ideas included reduced energy use, local food sourcing, demonstration gardens, transportation and improved air quality, and urban planning. The high occurrence of this theme could be in response to the given examples under the question, "If so, what would you like to work on together (reduced energy use, education, urban planning, local food sourcing, etc.)," but organizations still chose to list these projects as areas where they would like help. The religious organizations surveyed were especially interested in sustainability issues. For example, one religious organization wrote "All things regarding environmental issues and sustainability are important to us" while others asked for assistance with sustainable landscapes and reduced energy use. City leaders were also very interested in environmental concerns and stated multiple ideas relating to improved air quality and more efficient transportation with one city leader expressing the need for increased use of

the local bus system to "reduce vehicle miles traveled for air quality control." Clearly, sustainability issues are current concerns, further validating the need for a sustainability-based service-learning program to be implemented in Cache Valley. These responses closely matched results from Envision Utah showing that Utahans are, in general, concerned about environmental issues. The Envision Utah survey results showed that "for the future of air quality, the number one request by Utahans was to reduce emissions as quickly as possible so that all parts of Utah are well within federal health standards for air quality year-round. The number one request for energy is to diversify our energy sources."[12] It is likely, given these matching results, that a program like CBI would be helpful in addressing these issues. In addition to these concerns, surveyed organizations were almost always willing to offer something in return for a partnership with the university, potentially showing just how valuable a partnership would be to an organization.

Overall, the data obtained from these surveys will provide valuable information once the CBI project exits the pilot stage and moves into a wider community audience. Though CBI is currently only partnering with Logan City, CCESL would like to expand into more non-profit organization-designated projects. This would ideally take place as the directors of non-profit organizations identify needs within their organizations and CCESL would then match university courses to these needs. However, for the greatest expansion of this program, additional funding and USU staffing may be necessary. Regardless, the information from this survey will allow CCESL to have a better idea of what community partners would like from the university and give the university an advantage when trying to form these partnerships and enable them to hit the ground

running. If successful, it is hoped that this project will foster a stronger relationship between the university and the communities of Cache Valley by addressing the needs that are most important to these organizations.

In reference to other applications, this type of research could be useful when applied to any entity wishing to create a bridge between themselves and their community. For example, this could apply to a university wishing to establish a service-learning program, whether it be sustainability-based like the Community Bridge Initiative or not. It could also be applied to high schools, businesses, or religious organizations, etc. wishing to better understand the needs of their communities and how they can best be utilized to help. This type of partnership has the potential to provide community partners with the tools and manpower needed to accomplish their goals and also grants them a bigger voice within their community, allowing for real change to happen. These benefits also extend to those volunteering their efforts by providing valuable experience and greater insight into the concerns their community faces, sanctioning a truly mutual relationship. By following the methods illustrated in this paper, readers will not only be better equipped in determining their communities' issues, but will also be better prepared when they use their results for the betterment of the community and for their own organizations.

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CHAPTER 3

EVALUATING REACTIONS TO COMMUNITY BRIDGE INITIATIVE PILOT CLASSES: A PERSPECTIVE FROM UTAH STATE UNIVERSITY STUDENTS[2]

Abstract

Does participating in an integrated service-learning project aimed at improving local sustainability issues result in significant life-skills improvements for students? This study aimed to answer that question by evaluating student reactions to pilot classes featuring a sustainability-based service-learning program titled Community Bridge Initiative (CBI) in comparison to traditional university courses. A survey (response rate = 86%) was administered to students enrolled in four different CBI pilot classes (n = 109) within two different disciplines including natural resources and sociology. Results revealed that of all students surveyed, 92% reported a positive impact from the CBI class, 88% would take a CBI course again, and 73% felt that the CBI course was more effective in communicating course content in comparison to traditional Utah State University (USU) courses. This article reveals additional student perspectives and potential benefits from implementing the CBI program in a university setting.

Introduction

Though there are many interpretations of the term service-learning, "Service-Learning in Higher Education: Concepts and Practices" provides a concise but thorough definition. The authors conceive service learning as "a form of experiential education in which students engage in activities that address human and community needs together

[2] This manuscript is authored by Julie Koldewyn, Dr. Roslynn Brain, and Kate Stephens

with structured opportunities intentionally designed to promote student learning and development" (Jacoby, 1996). Service-learning connects theory and practice within a course to solve actual real world problems, thus creating an environment where both the student and the community benefits. These experiences can be individual experiences or campus wide initiatives that can range from short-term, one-time occurrences to semester-long, year-long, or even longer commitments. While one could compare internships and field work to service-learning, it is argued that service-learning differs as learning and service are equal to, and promote, each other (Sigmon, 1994). Each side must be equally represented and mutually beneficial to the other.

Godfrey, Illes, and Berry (2005) describe the "4 Rs" of service-learning as reality, reflection, reciprocity, and responsibility that are essential to a successful service-learning experience. Reality involves working on real-life problems rather than theoretical ones where the student can gain actual knowledge. Reflection is an especially important part as the student determines what he or she learned from this and how their life has changed because of their experience. Reciprocity is involved in making sure that both the student and the recipient gained something from this experience. It can't be one-sided or the service-learning aspect is marginalized. The final R, Responsibility, is needed to ensure that because the student was given the opportunity to be a part of a service-learning experience, much will be expected in return. This is a reminder for the student to continue to be a valuable addition to their community (Godfrey *et al.*, 2005). While there are certainly more aspects related to service-learning, these "4 Rs" provide a useful framework for the student to maximize the experience. Service-learning can adequately be summarized with the following statement: "Service, combined with learning, adds

value to each and transforms both" (Honnet and Poulson, 1989). Though service-learning programs can be incorporated into all levels of education, for the purposes of this study, a successful model for service learning found at the college and university level will be the focus, as some of the biggest changes can be accomplished with the resources that higher education can afford. As Derek Bok (2009) stated, "There is no reason for universities to feel uncomfortable in taking account of society's needs; in fact, they have a clear obligation to do so."

In addition to service-learning, sustainability has become a defining factor in education and students are demanding more sustainability-related programs and courses. In a Princeton Review study of 10,000 college applicants, 61% of respondents stated that "a college's commitment to environmental issues would impact their decision to apply or attend a school" (The Princeton Review, 2015). Clearly, from an economic point of view, it is worthwhile to include as many sustainability-related programs at universities as possible to attract and retain students. This demand has created a surge of environmental degrees and programs. Over 100 majors, minors, and certificates in energy and sustainability-related programs were created in 2009 compared to three in 2005 (Schmit, 2009). This was succinctly summarized in the statement, "As colleges add green majors and minors, classes fill up" (Schmit, 2009).

In relation to this demand for sustainability, Utah State University became a member of the Association for the Advancement of Sustainability in Higher Education (AASHE) in 2012 as a means of promoting sustainability in all areas of the university. AASHE's program is unique in that it "involves publicly reporting comprehensive information related to a college or university's sustainability performance. Participants

report achievements in three overall areas: 1) education & research, 2) operations, and 3) planning, administration & engagement" (Utah State University, 2012). This allows universities to check their progress in comparison to other universities and in so doing, works to motivate universities to incorporate more sustainable practices.

As a way to further promote sustainability and service-learning, the Community Bridge Initiative (CBI) at Utah State University was incorporated to create a program that allows students to gain real world experience while simultaneously addressing the needs of their community. The Community Bridge Initiative (CBI) is based on a similar program at the University of Oregon, called the Sustainable Cities Initiative, which pairs with a different city each year to tackle various issues related to sustainability. In order to gain more information about this program, a team from Utah State University including the researcher, the USU Center for Civic Engagement and Service-Learning Program Coordinator, a USU faculty member, and a Logan city employee traveled to Eugene, Oregon to attend the Sustainable City Year Program Conference put on by the University of Oregon in spring of 2014.

After learning more about how this program works and how it could be applied to USU, the USU Program Coordinator for CCESL, Kate Stephens, met with Logan city mayor, Craig Peterson, and USU Provost, Noelle Cockett, to discuss how this program could be implemented through a partnership between the city and the university. As a result of this meeting, Cockett agreed to the partnership once projects had been identified and prioritized through Logan City. In fall of 2014, Cockett and Peterson presented the CBI program to the Logan City Council which resulted in an official letter of agreement signed between USU's CCESL and Logan City with Mayor Craig Peterson agreeing to

fund up to $4,860 to support CBI projects and an intern to compile a final report (K. Stephens, personal communication).

Consequently, the CBI pilot program was initiated the spring of 2015, as a result of a kickoff project with the city of Logan. Prior to this event, Logan city employees submitted proposals to the mayor's office for approval. Afterward, the approved projects were discussed at the kickoff event that took place at Logan's City Hall, where city representatives and university instructors met to converse on these various community needs and how university courses could address them. Subsequently, four projects were chosen and paired with different university courses, Human Behavior in the Social Environment in the College of Humanities and Social Sciences, and GIS Research Projects, Living with Wildlife, and Communicating Sustainability in the College of Natural Resources. While service-learning is already well-established and will continue to operate as it had at USU within its Center for Civic Engagement and Service-Learning (CCESL), CBI was established as a more formal service-learning program that brings classes together to work on a designated need within the community. Its purpose was not to replace service-learning, but to offer more opportunities (K. Stephens, personal communication, 2015). In an article for Logan's newspaper, the Herald Journal, Kate Stephens, the Assistant Director for CCESL, stated:

> Up until now, there hasn't been a program that worked with the community in a multidisciplinary and intentional way. It isn't as though professors have not assigned students to work on local issues. USU has service-learning courses that already integrate community service with classroom instruction. The difference

with the Community Bridge Initiative is the formal connection between the city and the university to work on targeted issues (Stewart, 2014).

In Human Behavior in the Social Environment, students teamed up with Logan City Community Development on a project to gather over 200 surveys in a specific neighborhood to determine what the unique area assets are and where improvements could be made. Students were responsible for designing the survey, administering it to respondents, and then inputting and analyzing that data. They then reported their major findings to the neighborhood planning committee. According to the instructor, "students gained greater competency in research, but they also were able to apply human behavior theory in the context of community" (J. Lucero, email conversation, 2015).

The next class, GIS Research Projects, two students created GIS (geographic information system) story maps for different projects provided by Logan City. For example, one student created a GIS map of recreation trails in Logan and the other student created a GIS map showing where parks were located within the city and how they correlated with different socioeconomic groups. Though this class duration was only five weeks, students were able to use practical skills to provide a real benefit to the city. One student was even offered a job as a result of his work on this project.

In Living with Wildlife, students partnered with the city forestry team to trim city trees in order to "improve air quality, enhance urban wildlife habitat, reduce infrastructure costs, and beautify the city" (K. Stephens, personal communication, 2015). After an in-class presentation on how to trim trees by the City Forester, Joe Archer, students were split into groups and assigned to a forestry crew member where they spent six hours each trimming city trees. Students were taught how to make correct cuts and

were then applied their skills learned with limited supervision. Students discovered how city trees are managed, how to properly trim trees, and were exposed to urban-wildlife issues and settings.

In Communicating Sustainability, students chose their own individual community partner to tackle a project relating to air quality. For example, one student worked with a local coffee shop to install a bike rack to encourage patrons to ride their bikes instead of driving. Another worked with the neighboring city government to post "Turn Your Key" signs to remind drivers to not let their cars idle and contribute to air pollution. Students in Communicating Sustainability also worked with the local high school to mentor high school students and to foster involvement in a clean air poster contest. The goals of the contest were to increase community awareness about air quality in the community and to develop posters into community signage and air fresheners reminding locals to engage in behaviors that enhance local air quality. Students worked collaboratively with Logan City, Logan High School, and a local business to gain a better understanding of community issues and the best ways in which to tackle and implement projects addressing them.

This study investigated the reactions of university students enrolled in these pilot classes in comparison to traditional USU courses. Students were encouraged to share their honest opinions about how the classes worked and suggestions for future classes. Course instructor responses were also solicited to show how teachers felt the project worked in their class and whether or not it benefitted their students. Obtaining feedback on CBI during the pilot phase will allow CCESL to better implement the program once it leaves the pilot stage, giving students and teachers the best opportunities to learn and

teach while also constructing the best environment to create real change within the community. Results should prove beneficial to readers also wishing to implement a similar program as this study will provide specific recommendations on how to do so. Results will also benefit those looking to evaluate student reactions to a program or class.

Methods

The research participants included all students enrolled in the four pilot CBI courses spanning the Colleges of Humanities and Social Sciences and Natural Resources. The course titles include Human Behavior in the Social Environment (13 students), GIS Research Projects (two students), Communicating Sustainability (10 students), and Living with Wildlife (84 students).

This study was exploratory in nature, using inductive analysis to assess student reactions and advice. As such, no hypothesis was formed (Hatch, 2002). A mixed methods descriptive survey with quantitative and qualitative questions was designed through insight from CCESL and professors from the Department of Environment and Society in the College of Natural Resources. The survey included a 5-point Likert agreement scale measuring 11 self-assessed skills before and as a result of the class, five binary response options, and two open-ended statements to gain further insight. This assessment was based off a similar survey provided by an instructor in the College of Natural Resources used in her Communicating Sustainability course. Skills specific to this project were added or amended as seemed necessary by the researcher and the program director for CCESL. The survey was designed to determine what skills students gained from a CBI course, how students liked the CBI program, how their class

compared to traditional USU courses, and specific improvement opportunities for the CBI program.

An introductory PowerPoint presentation was included at the conclusion of the class for three of the four courses (the fourth course only had two participants and the instructor gave me their email addresses instead). The purpose of the presentation was to explain to students what CBI is, how their class was involved in the program, and how student participation in the survey was helpful for the future of CBI. This was done at the end of the semester when all the projects were completed and students were fully prepared to take the survey. After the presentation, the survey was either hand-delivered in class, sent via email link, or delivered through a Qualtrics survey software link depending on the preference of the instructor. Likewise, the results were either picked up in person, retrieved via email or Qualtrics. Of the 109 participants selected, 94 responded and returned their surveys, resulting in an 86% response rate.

Results were analyzed using the Statistical Package for Social Sciences (SPSS) software and open and axial coding. The open-ended questions were transcribed verbatim. Following procedures outlined by Hatch (2002), open coding was done by first reading through each survey to gain a general sense of the data included. Each survey was read within the context of the class it came from to find specific patterns for that exact group and then the patterns found in each class were then compared to the survey respondents as a whole. After open codes were found for each group, axial coding was performed by examining the open codes within each group and then comparing them to the codes as whole for the entire survey population to determine relationships and general patterns. While using surveys in grounded research isn't common, it has been shown "to

be a practical and effective aid to theoretical sampling" and having this information will be useful for future analysis of the CBI program (Currie, 2009). An analysis report was then written summarizing the interpretations that were found.

Results

Again, of the 109 participants selected, 94 responded resulting in a response rate of 86%. Each class received a 100% response rate except for the Living with Wildlife class, which had a response rate of 79%. This may have been due to the large class size and the fact that their survey was sent via an email link instead of in person, so students may have had less motivation to respond. The other classes (Communicating Sustainability, Human Behavior in the Social Environment, and GIS Research Projects) were also major-specific; Living with Wildlife, in contrast, was a depth class with students of many different majors. This could also have had an impact on student willingness to respond.

The 5-point Likert agreement "before" and "now" scales were analyzed using a paired-samples t-test in SPSS. The skills measured were as follows: (1) Working in groups, (2) Working with various stakeholders in the community, (3) Implementing lasting change, (4) Creative thinking, (5) Promoting individual environmental behaviors, (6) Fostering community-scale environmental behaviors, (7) Applying university research to foster community change, (8) Networking with professional contacts, (9) Applying hands-on, real world experience, (10) Fostering a personal sense of community issues, and (11) Cultivating a sense of your role as an active citizen. Response options included (1) Not at all confident, (2) Slightly confident, (3) Neutral, (4) Very confident, and (5) Completely confident. Tables 3-1 through 3-4 show the results of the four classes

analyzed separately and then all classes analyzed together. Results from Communicating Sustainability and GIS Research Projects were combined in the same analysis given that they both came from the same Qualtrics survey method and were impossible to separate.

Table 3-1. Skills measured before and after CBI project in Human Behavior in the Social Environment

Human Behavior in the Social Environment Skills	Score Before	Score After	N	Sig. (2-tailed)
Working in groups	3.92	4.69	13	.011
Working with various stakeholders in the community	2.77	4.08	13	<.001
Implementing lasting change	2.77	4.15	13	<.001
Creative thinking	3.54	4.54	13	<.001
Promoting individual environmental behaviors	2.46	3.62	13	.003
Fostering community-scale environmental behaviors	2.08	3.77	13	<.001
Applying university research to foster community change	2.15	4.15	13	<.001
Networking with professional contacts	3.00	4.00	13	.001
Applying hands-on, real world experience	3.23	4.46	13	<.001
Fostering a personal sense of community issues	2.46	4.31	13	<.001
Cultivating a sense of your role as an active citizen	2.15	4.54	13	<.001

Table 3-2. Skills measured before and after CBI project in Living with Wildlife.

Living with Wildlife Skills	Score Before	Score After	N	Sig. (2-tailed)
Working in groups	3.97	4.26	68	<.001
Working with various stakeholders in the community	2.82	3.85	67	<.001
Implementing lasting change	3.15	3.83	65	<.001
Creative thinking	3.61	3.91	66	<.001
Promoting individual environmental behaviors	3.12	4.06	69	<.001
Fostering community-scale environmental behaviors	2.54	3.67	67	<.001
Applying university research to foster community change	2.57	3.59	68	<.001
Networking with professional contacts	2.90	3.60	68	<.001
Applying hands-on, real world experience	3.57	4.34	68	.002
Fostering a personal sense of community issues	3.06	4.00	68	<.001
Cultivating a sense of your role as an active citizen	2.96	4.07	68	<.001

Table 3-3. Skills measured before and after CBI project in Communicating Sustainability and GIS Research Projects.

Communicating Sustainability and GIS Research Projects Skills	Score Before	Score After	N	Sig. (2-tailed)
Working in groups	3.75	3.92	12	.504
Working with various stakeholders in the community	2.67	3.75	12	.002
Implementing lasting change	2.58	3.50	12	.020
Creative thinking	3.75	3.83	12	.723
Promoting individual environmental behaviors	3.25	4.08	12	.005
Fostering community-scale environmental behaviors	2.92	3.83	12	.034
Applying university research to foster community change	2.42	3.75	12	.001
Networking with professional contacts	3.00	3.75	12	.012
Applying hands-on, real world experience	3.50	4.08	12	.111
Fostering a personal sense of community issues	3.42	3.92	12	.053
Cultivating a sense of your role as an active citizen	3.25	4.08	12	.002

Table 3-4. Skills measured before and after CBI projects in all courses.

All Courses Skills	**Score Before**	**Score After**	**N**	**Sig. (2-tailed)**
Working in groups	3.94	4.28	92	<.001
Working with various stakeholders in the community	2.79	3.87	91	<.001
Implementing lasting change	3.02	3.83	89	<.001
Creative thinking	3.62	3.99	90	<.001
Promoting individual environmental behaviors	3.04	4.00	93	<.001
Fostering community-scale environmental behaviors	2.52	3.71	91	<.001
Applying university research to foster community change	2.49	3.69	92	<.001
Networking with professional contacts	2.92	3.68	92	<.001
Applying hands-on, real world experience	3.52	4.32	92	<.001
Fostering a personal sense of community issues	3.02	4.03	92	<.001
Cultivating a sense of your role as an active citizen	2.88	4.14	92	<.001

Individually, each class was statistically significant in all skills except for in Communicating Sustainability and GIS Research Projects where Skills 1, 4, 9, and 10 were not statistically significant. This could be explained due to the small sample size of these two classes (only 12 students). In addition, Skill 1 (working in groups) may have not been significant because both GIS Research Projects students and some of Communicating Sustainability students worked alone, possibly lowering the score for the

skill. When analyzed together, all classes showed a statistically significant difference in all 11 before and now skill scores. Although the results are subjective in this self-assessment, students ranked themselves better after taking a CBI course, suggesting that these classes are effective in improving desired skills.

For the binary response questions, results were also positive. The five questions asked are as follows:

1. Did this class positively impact you?
2. Would you take a Community Bridge Initiative (CBI) class again?
3. Would you list this experience on your resume for future employment?
4. Are you male or female?
5. Do you feel that this class was more effective in communicating course content in comparison to traditional USU classes?

In regards to the 13 students in Human Behavior in the Social Environment (3 males and 10 females), 100% stated that the class positively impacted them, they would take a CBI course again, they would list this experience on their resume, and they felt that the class was more effective in communicating course content in comparison to traditional USU courses. This was a class where students were taking it specifically for their major, which may have had an influence on the high result percentages. Students felt very positively about this class and the relevance of the project.

In Living with Wildlife, of the 69 students who responded (34 males and 35 females) 91% stated that the class positively impacted them, 88% would take a CBI course again, 55% stated that they would list this experience on their resume, and 69% felt that the class was more effective in communicating course content in comparison to

traditional USU courses. Again, the different results here may have been influenced by the fact that this class was a depth class with students of many different majors. For example, in regards to the third question, trimming trees would not likely be a useful skill to put on your resume if you were an accounting major. The fifth question also had lower percentage results and this was likely to be because some students felt that trimming trees had little to do with wildlife. However, despite this fact, most students still responded favorably to the CBI project within the class.

For the Communicating Sustainability and GIS Research Projects courses, 92% of the 12 students (9 males and 3 females) stated that they felt that the class positively impacted them, 75% would take a CBI course again, 67% would list the experience on their resume, and 67% felt that the class was more effective in communicating course content in comparison to traditional USU courses.

When analyzing all courses together, 92% of the students reported that the class positively impacted them, 88% would take a CBI course again, 63% would list the experience on their resume, and 73% felt that the class was more effective in communicating course content in comparison to traditional USU courses. Though the Living with Wildlife course was significantly larger compared to the other classes and therefore may have skewed these results, the outcomes here are still overwhelmingly positive and suggest that most students are satisfied with CBI courses and would like to see more of them in the future.

For the final two open-ended statements on the survey, open codes revealed some differences and similarities in student reactions. The question was asked “Do you feel that this class was more effective in communicating course content in comparison to

traditional USU classes? If so, please explain." The open codes from each class are shown in Table 3-5.

Table 3-5. Open codes and respondent quotes comparing CBI courses to traditional university courses.

Class	Open Code	Select Respondent Quotes
Human Behavior in the Social Environment	Hands-on work	"It wasn't just talk. There was actual hands on experience that pushed each of us to develop more competence and confidence in our abilities." "It allowed for hands on, immediate feedback instead of theoretical classwork with variable amounts of feedback." "How better to learn than by participating hands-on on projects. I have learned a lot."
	Real life experience	"I felt that this class allowed me to connect the dots on our research course material and helped me to see how I can implement research in the real world." "I feel like I'm leaving this class with more knowledge and experience that I gained in my other classes. I feel like I will be able to better apply class experiences to my future career." "It really helped us apply what we learn to a real life context."
	Community change	"It is one thing to sit and listen to a lecture on neighborhood improvement, but entirely another to be on the front line, working to make those changes. Loved this project!" "It made me feel like a researcher because the work we did will have a direct effect on the community." "The city was extremely interested in the data we collected and wanted to implement changes."
Living with Wildlife	Learning by doing	"The best way to learn anything is by getting your hands dirty and experiencing it firsthand." "I think people learn better being involved in something rather than just sitting in a classroom and just learning about it" "I am firm believer that the best way to learn is by experiencing it in real life." "The other classes I have taken teach me the content, but not the application. This class taught both."
	Expanding perspective	"Trimming trees allowed me to interact with wildlife in a place that we do not normally think about."

		"Most of the time when I think of human interaction with wildlife it is negative. In this case it was something very positive." "It helped me realize how I don't have to go into the mountains to hunt or hike to be interacting with wildlife."
	Practical skills	"I can now say that I know how to trim a tree, which is pretty cool." "It gave students a marketable and beneficial skill they may have otherwise never attempted to learn" "This project was especially useful in the sense that it taught me valuable skills for when I have property of my own."
	Community involvement	"The project expressed the importance of volunteering in helping maintain healthy ecosystems" "The project was a great way to feel a part of the community and apply content learned from class." "I was able to participate in the community and I feel that I got to know more about how I feel about the community through this activity."
	Irrelevance	"I did not feel that this service project had anything to do with the course content." "I really don't feel that this experience helped me much in learning course material." "I don't feel it did so better nor worse than other classes."
Communicating Sustainability and GIS Research Projects	Hands-on experience	"Great experience to work on a hands on project" "This class provided real, current hands on examples"
	Real world application	"Given me a greater understanding what I could be doing in the future" "This class enabled me to apply concepts learned in class immediately to real world situations"
	Uncertainty	"I think both are effective. I don't want to sway the scale just yet." "The comparison is not applicable. The course is not for everyone." "I wasn't aware I was involved in [the CBI project]."

In analyzing each class, it was found that students in the course, Human Behavior in the Social Environment, were overwhelmingly positive about their experiences with the CBI project. They appreciated the hands-on work, real-world application (especially when it came to their future careers), and the opportunity to use their work to improve the community.

The students in Living with Wildlife were similarly excited about experiencing course content through first-hand experiences and using that knowledge to effect community change. They also appreciated the practical skills gained through this experience, though most of these skills were not necessarily for their future careers but applicable in their personal lives. Dissimilar to the sociology course, students in Living with Wildlife didn't find as much application of the project to their course learning, though some definitely found an expanded perspective when it came to urban-wildlife settings.

For the courses Communicating Sustainability and GIS Research Projects, students were also happy with the hands-on experiences and real world application similar to themes found in the other pilot classes. And similar to Living with Wildlife, there was also an element of uncertainty in these classes as to whether this type of class was more effective in teaching course content. One student didn't realize that they were in a CBI course, so greater attention to the CBI incorporation could address this issue. When addressing the next open-ended statement, "Please provide any feedback about the Community Bridge Initiative to help us improve the program in future years," open codes were relatively similar across classes with a few extra codes showing up in Living with Wildlife. Table 3-6 describes these codes.

Table 3-6. Open codes and respondent quotes about feedback from CBI courses.

Class	Open Code	Select Respondent Quotes
Human Behavior in the Social Environment	Expansion	"Use it with more classes." "Perhaps collaborating with other classes" "It would be awesome if more classes could be set up like this. Expand the program and make more like it."
Living with Wildlife	Better Application To Wildlife	"Information on what wildlife uses those trees would have been interesting." "I would have enjoyed having someone come in from the Forest Service to go into more detail about the habitat for trees." "The main object of the course is to learn how wild animals and humans coexist, and I was unable to see that object present during my service."
	Expansion	"It should be implemented in several courses at USU…I would like to see this project as more of a big deal in the future." "I would have loved doing more projects for the community." "Find a way to get involved with more courses…this has been the only class so far that I have experienced anything like this."
	Increased flexibility	"Have it occur earlier in the semester. Taking several hours out of the last few weeks before finals has made it a bit more difficult to prepare for upcoming tests." "I do wish that the hours could have been more flexible." "I have a full-time job and classes to plan around, so it was rather hard to find the extra time to be there for 3 hours out of my day."
Communicating Sustainability and GIS Research Projects	Expansion	"Offer more courses like this." "Bigger. More. New areas."

Comments from all classes demonstrated a desire to see the CBI program expand into more university courses and have it be a bigger program for USU in the future. Most students enjoyed the pilot classes and wanted more opportunities to take classes like these within their academic programs. Students also wanted to see more projects implemented

in the community as many loved the community aspect and wanted more volunteer opportunities. In Living with Wildlife, students wanted more flexibility of service hours and some showed higher dissatisfaction about the service hours required. Again, this could be because this class was not a major-specific course for many of the enrolled students, so the application might not have been as valuable to these students as those in the other pilot classes. As mentioned above, Living with Wildlife students wanted better application from the project to the course material and this has already been brought to the attention of the instructor who plans on making a stronger connection for future classes.

In regards to the axial codes formed from these open codes, there were common themes that arose from the courses as a whole. For the first open-ended statement comparing CBI courses to traditional USU courses, students were most impressed with the hands-on work, real-world application, and the contribution to the community. For the second statement asking for suggestions for CBI, students were overwhelmingly interested in expanding the CBI program into more university courses and community needs.

After the projects were finished, instructor feedback for the CBI courses was also solicited. For those who responded, instructors were impressed with the application and potential of CBI projects. One instructor stated,

> I am very enthusiastic about the CBI. There have been a multitude of benefits for my students, our community, and me. This type of partnership has made an impact on my teaching. Students have been more responsive to difficult topics because they're having an opportunity to actually do the work (research in most

> cases). I'm more confident than before that my students are leaving my classroom with the skills I intended them to develop. I have also had a chance to network with and collaborate with city officials that I may not have without the CBI. Finally, I'm seeing community impacts. For the [information withheld] neighborhood survey, we gathered data that the city did not have the resources to gather, and their neighborhood plan is more robust with the inputs from my students. On the whole, I am happy to see my students are thinking more deeply about their place in their community, and what that might look like in their future careers in social work.

Another instructor stated,

> The CBI program was a great way to connect students in my class to a larger community issue. Working with local high school students and the City of Logan gave the undergraduates a further sense of meaning as they worked to raise community awareness and change behavior regarding idling and air pollution.

Following these instructor and student reactions, it could be said that the first four CBI pilot classes were a success. However, with such a small sample size in its pilot semester, it is hard to judge what the criteria is for success and failure in this study. For now, classes should be examined on a case-by-case basis in order to identify the strengths and weaknesses of the program. Doing so will allow the program to be modified as necessary for the best implementation possible of CBI.

Applications and recommendations for future CBI courses

With full implementation of the CBI program, students have the potential to learn course content while engaging in real-world projects that contribute to the community they live in, bridging the gap between the "university on the hill" and the city. This could help permanent residents to better appreciate their status as a college town. As one student wrote on her survey, "I think future projects will help city residents see students as an asset, versus a nuisance in Logan." With greater expansion, CBI could potentially assign thousands of USU students to various community projects that would have a broad-reaching positive impact on the town they live in. Likewise, this program has the potential to set up students with the skills needed to be better prepared for their intended careers, giving students exactly what they want out of their university experience. As quoted earlier, "how better to learn than by participating hands-on on projects." Students are willing and the university has a responsibility to provide these experiences for them.

In regards to CBI, generating awareness is the first step in the successful implementation of this program. With these pilot courses, many students didn't realize that they were a part of CBI until the author explained it to them in the PowerPoint presentation. With greater attention to this program, students will likely be more motivated once they understand what they are involved in and what potential these classes hold for them. Second, as students suggested, the CBI program should be expanded and more courses should be offered to accommodate student interest. Once more awareness is made about the CBI program, it is likely that more students and faculty members will want to be involved. Lastly, it will be important to make sure that

community partners are getting as much out of this partnership as the students are, and future research should gauge whether this is the case. Meetings should be held beforehand to clarify expectations and exit interviews should be held to ensure that everyone in the partnership is satisfied. Thus, future research on this initiative could focus on community partner reactions to working with university students to determine that they are benefitting equally.

For additional applications, this type of research could be used by universities wishing to determine student responses to a service-learning course, organizations looking to improve the experiences of their volunteers, businesses improving their employee retention, or any other entity needing a method to determine user reactions. Analyzing individual feedback is vital in the implementation of any program to determine strengths and weaknesses and where organizations need to emphasize or improve. This will allow organizations the best possibility of success.

For those wishing to implement a project similar to CBI into their classroom, below is a list of recommendations based on this study:

1. In choosing a project, deliberation should be taken to confirm that the project and course content match as closely as possible so that students are sure to see relevance and gain the professional skills needed.
2. Once the project and partner are chosen, a meeting should be arranged between faculty and the community partner to ensure that expectations are understood from both sides and what would be required for a mutually successful partnership.

3. When the course begins, care should be taken to make sure students know what they are a part of. Greater awareness of the program will motivate students to become more involved once they understand the potential their skills will have on the community and what benefits they can gain individually. This could be done through in-class presentations and/or direct interactions with the community partner.
4. After the project is completed, assessments from both students/faculty and community partners should be done to determine what worked and what didn't. This will help future projects and interactions to be more successful within the program.

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CHAPTER 4

DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

Introduction

This chapter offers a subjective viewpoint of the largest CBI pilot course, a summary of the research findings, and recommendations for Utah State University (USU) and other universities wishing to implement similar programs. The use of subjectivity in qualitative research, though not common, is helpful when trying to gain a better idea of what is really happening in a given situation. In order to present a clearer picture, "adding the researcher's voice in most cases is designed to fill some of the absences which 'difference' produces in order to construct a more complete, more 'real' ethnographic picture" (Walkerdine *et al.*, 2002). Having this subjective knowledge of a specific CBI class, Living with Wildlife, will give a more thorough understanding of how this CBI class worked and allow CBI to have a better understanding of what students liked and disliked about this program and use these responses to better implement the program in future projects. As the Teaching Assistant (TA) for this class, I will include my own viewpoints on the strengths and weaknesses of the CBI program and recommendations for better application. Additionally, I feel that I am in a unique position to write about this course as I had taken this class as an undergrad, was a TA for the same class (but in a different semester) as an undergrad, and had the opportunity to work on the CBI project for my thesis while working as a graduate TA. Having had the opportunity to either take or be a TA in this class for three different semesters allows me to better understand how the CBI project could work in a class like this and the strengths and weaknesses encountered. As this was by far the largest class of the four pilot CBI classes (88

students), there were significantly more student surveys to review and many more comments were made about the program, both about what students liked and didn't like. In addition to my case study on this project, this chapter will also feature many of the positive student reactions as well as some constructive criticism in addition to that listed in Chapter 3.

Again, the Living with Wildlife course was paired up with the Logan's city forestry team to trim city trees. As the project dealt with trimming city trees, the project was set up to take place near the end of the semester when the weather was a little better for outside activity. This project had the stated impacts of improved air quality, enhanced urban wildlife habitat, reduced infrastructure costs, and beautification of the city. The project was set up to mutually benefit both students and the city as students would gain practical skills and learn more about urban wildlife and the city would gain free manual labor. This project was first introduced to Living with Wildlife students at the beginning of spring semester as part of the syllabus introduction. It was stated that this was a pilot project as a partnership with the Logan city forestry crew and students would be expected to contribute service hours as a course requirement. This was further reiterated later in the semester as City Forester, Joe Archer, attended the class to instruct students on the significance of trimming city trees in relation to urban wildlife and explaining how Logan's thousands of trees were dealt with a meager 3-man crew. Archer went on to explain to students how to properly trim trees in preparation for their service later in the semester. After this presentation and multiple times after, course instructor, Robert Schmidt, reiterated how city trees are vital to the health and wellness of urban wildlife and how trimming these trees allows both residents and wildlife to benefit. The instructor

was careful to stress the connection of the course's content of issues related to living with wildlife in respect to the project as he emphasized how city trees are a way for urban wildlife to exist in conjunction with human activity.

As the project neared, I set up 20 3-hour shifts spread over the last two weeks of the semester that students could sign up for through Canvas, USU's online education portal. As many as 10 students could sign up for one shift and students were asked to complete either two shifts or bring a friend to cut their time in half, meaning a student would only have to work one 3-hour shift since his or her friend would be making up the other three hours. In addition to this being a valuable incentive for students to maximize their service time, this option served as a valuable way to spread CBI to students, friends, and family members who were not involved in the class. As this project took place at the end of the semester, many students struggled with trying to find a time to sign up as they were busy studying for finals and finishing end-of-semester projects for other classes. Consequently, some were not happy about having this additional work at the end of the semester. As the course TA, I showed up to each shift to take roll to ensure that students got credit for attending. The city forestry crew handed out hard hats, vests, and tools and students were given a brief explanation on how to trim trees. Though some showed clear annoyance at having to be there to perform manual labor, student responses showed that as they completed their shifts, most enjoyed the aspect of hands-on learning, community service, gaining practical skills, and expanding their views on what wildlife is and, consequently, felt that that the service project was enjoyable and worth their time. There were also some comments made that echoed many of the benefits that the directors of SCI stated would happen as a result of the program. For example, there were a few

students who really appreciated the opportunity to network with city officials and obtain a better appreciation of what city workers do and how hard they work (Larco, 2015b). One student stated,

> Trimming trees helped me to get to know the city employees better. I think people give government employees a lot of bad rep even though they provide some very valuable services. Understanding the importance of this service helped me affirm that my tax dollars are being well spent. To anyone who may doubt the importance of local government, I would suggest they go spend three hours helping the city foresters.

Having this chance to make connections and understand how city government works is an invaluable insight that many students are never exposed to. Most students really enjoyed working with the forestry team and I believe that may have made a big impact on the success of this project.

Along with the connection to city workers, some students really valued the interactions with Logan residents. While some students experienced homeowners getting angry about cutting their trees, many more experienced residents thanking them for their service which made them feel positively towards the project. Whether positive or negative, one student found the experience a good way to learn wildlife management. He reiterated the phrase repeated in class, "wildlife managers don't manage wildlife, they manage people." What better way to learn this skill through hands-on work. Additionally, some students found further meaning in this experience with the opportunity to show permanent Logan residents the possible potential for being a college town. One student wrote that "this service project was a great opportunity for us to show long-term residents

of Logan that we [students] can be useful. There should be benefits, not drawbacks, to living near a college campus." Likewise, another student stated, "I believe as college students, we should be strongly encouraged to get out in the community and give service. This would give the university a good reputation and it would bring our community even closer together." Again, as stated by the SCI founders, projects like these definitely provide opportunities for positive press for both the university and the city officials (Schlossberg, 2015).

As stated in Chapter 3, students really enjoyed the connection to the community but some students emphasized this point even further as they felt that they had gained a sense of community that they had never felt before. One student stated,

> For the past three years that I've lived in Logan, it has always kind of felt like my temporary home mainly because I feel like I don't know too much about it and I didn't feel like a part of the real community of Logan. But after doing this service project, I'm finally starting to feel like this isn't just some temporary town for me. Logan has begun to feel a little more like home.

One foreign student in class also echoed this sentiment. She stated,

> I didn't feel like this project was a volunteering job for the city. It is more like an enjoyment. It is a good way to enhance everybody's feeling of being a part of the community of Logan, especially me – a foreigner. I think I have more feeling on this point than others.

I believe that this factor is especially important to recognize as getting out into your community and volunteering is a great way to feel like you belong, and foreigners who

may already feel out of their comfort zones in a new school and new location may especially benefit from projects like this.

As a consequence of this project, many students also felt more of a desire to increase their volunteer experiences. Many also experienced a feeling of accomplishment because of the service they gave. One student remarked that,

> a roommate of mine was commenting that he noticed that the city had been trimming trees and it looked nice. I said that I had helped with that and he thought that was cool. Being able to say I helped make the city look a little bit nicer made me feel good.

In addition, some students felt that the project exposed them to new interests and were thankful for the experience.

As stated in Chapter 3, many students felt that the act of trimming trees was too much of a stretch in relation to the course content. As this was a pilot class, and therefore a complete experiment, we learned that for future courses, better attention to this fact will be needed in order to help students find a better connection between the theoretical knowledge and practical project for the course. Though the instructor talked about the connection between trimming trees and urban wildlife multiple times within the course instruction, some students still had a hard time seeing the significance. This could possibly be remedied by having a forester come in and teach students about the types of trees they were encountering and explain what types of wildlife inhabited these trees. An alternate project has also been suggested by the city forestry team to have students plant trees instead of just trimming them. With this proposed project, it is likely that students will better appreciate the connection between the course content and practical application.

Another project idea proposed by Logan Mayor Craig Peterson was managing Logan's urban deer population which would be a perfect match for this type of course, and may take place in lieu of tree trimming for next year's Living with Wildlife course.

Students also felt very positively towards the help they were giving the city forestry crew. Many commented on the newfound awareness of how many trees the city is in charge of and the amount of work that goes into those trees. Consequently, students liked that they were able to help them out. However, there were a few students who felt that they were more of an annoyance to city workers instead of an asset. One student stated, "I think much more work would have been done and faster had I not been in the way." Another stated that she felt like she was in the way and that her crew leader ended up having to do most of the work himself. Another student expressed that in talks with the forestry crew, the crew could have done what the class did in two weeks in one day so he didn't feel like he was much of a help. Unfortunately, the forestry crew reiterated the latter statements at the conclusion of the project. In a post-class meeting with the forestry crew, the instructor and I learned that there were some definite drawbacks for the city side of this partnership. While the initial plan was to make trimming efforts easier for the forestry crew by providing a lot more manpower, it actually turned out that the crew ended up spending a lot more time teaching students how to trim trees during their shifts instead of just setting students out on their own to trim. This meant that not as much work was done in the long run and that the crew ended up behind in their regular work. Work definitely did get done, but just not as much as anticipated. Another factor that increased the forestry crew's work was a snowstorm that hit Logan in mid-April. In order to accommodate student shifts scheduled for that day, the crew had to take care of fallen

branches early in the morning and late into the evening, making for extra-long work days. Had it not been for this drawback, the project may have been a lot more successful on the city's side.

To combat these issues, the forestry crew suggested the alternate idea of planting trees or even splitting the class in two and having half trim trees and the other plant trees. They also suggested extending the time frame of the project to a month instead of having 80 students trim trees over the period of two weeks. This would allow the forestry crew to catch up on their work during the day and not get so far behind. As a result of this experiment class, next year's partnership will hopefully be better prepared to make sure that students are getting the practical knowledge important to them and that the city forestry crew is benefitting equally with the amount of work done.

In examining this project from the instructor's and city's goals, it's difficult to say whether this project was a success or not. As discussed above, some students easily found the connection between living with wildlife and trimming trees, while some definitely did not. In discussions after the project was finished, the instructor felt that it was a failure on his part that the educational aims of the course were not met with this project. In that sense, the instructor felt that this particular project may have not been the best option for his class as students shouldn't have to try so hard to find that connection. However, he agreed that from the students' perspective, the project was very successful as students thoroughly enjoyed the service aspect of their coursework despite many students having negative feelings before completing their shifts. Though the project was underwhelming for both the instructor's and city's perspectives, I felt that this project was positive as many students felt very strongly about being able to get out of the classroom and

experience course content in action. One student felt particularly enthusiastic about his tree trimming experience:

> While I was trimming trees for my first day, I told the guy teaching us that being in this class had nothing to do with my major but that I had learned more in this class than all of my other classes. He thought that was interesting and asked me why that was. I told him that this class was getting me out and doing actual things that are real life situations. The tree trimming was useful for a number of reasons including appreciation for community efforts, the care of trees, hands on experience, and education by action.

Despite this not being a major-specific class, most students appreciated the hands-on approach of this course and most expressed the desire to take more like it. In conclusion, lessons learned from this class showed that students were pleasantly surprised by how much they enjoyed having an active role in their education and were eager for more experiences to accompany their coursework. However, in order for CBI to be successful, it must work for all parties involved and, in this case, modifications would need to be made in order for the city and the instructor to be willing to take this project on again.

Conclusions and recommendations for the future of CBI at Utah State University

In summary of the community partner and student surveys, it seems likely that CBI has the potential to be successful at Utah State University and within the community. The following conclusions show the key findings discovered in this research:

Community partners survey

1. Community organizations desired a working partnership with USU.
    a. Of the 35 community partners surveyed, 91% wanted to partner with USU in efforts to tackle current and future issues.
    b. Non-profit organizations and schools had the highest response rate (100%), suggesting that these organizations were likely the most willing to partner with USU and might benefit the most from a partnership.
2. Community organizations are currently interested in improving the communities of Cache Valley, educating the public about important issues and spreading awareness of their specific programs, and mitigating funding and physical resource issues.
3. Community organizations anticipate funding issues and changing demographics as concerns in the next five years.
4. In regards to partnerships, organizations were most interested in pairing with USU to work on education and volunteer initiatives and sustainability-based efforts.
    a. Education projects suggested include awareness activities with a local domestic abuse prevention center, advocacy projects for people with disabilities, teaching parenting skills, prevention measures at the community health clinic, and student volunteer and intern help.
    b. Sustainability-based projects included reduced energy use, local food sourcing, demonstration gardens, transportation, improved air quality, and urban planning.

5. Community organizations were willing to donate education opportunities and physical resources in exchange for a partnership.
    a. These included internships, exposure to work environments, office space, and mileage reimbursement.

Student survey

1. As a whole, all 11 skills significantly improved for students enrolled in CBI classes.
    a. Individually, each class was also statistically significant in all skills except for Communicating Sustainability and GIS Research Projects where four skills (Working in groups, Creative thinking, Applying hands-on real world experience, and Fostering a personal sense of community issues) were not statistically significant. However, this may have been due to the small sample size (only 12 students surveyed).
2. Overall, 92% of the students reported that the class positively impacted them, 88% would take a CBI course again, 63% would list the experience on their resume, and 73% felt that the class was more effective in communicating course content in comparison to traditional USU courses.
    a. Individual classes also showed positive results (Human Behavior in the Social Environment: 100% on all responses; Living with Wildlife [same order as listed above, respectively]: 91%, 88%, 55%, and 69%); Communicating Sustainability and GIS Research Projects [same order as listed above, respectively]: 92%, 75%. 67%, and 67%).

3. Students were most impressed with the hands-on work, real-world application, and the contribution to the community as a result of the CBI course.
4. Students wanted to see greater expansion of CBI into more university courses and different community needs.

Following these conclusions, full implementation of CBI at Utah State University is recommended. However, there are also some suggestions for improvement that will further CBI's efforts at full implementation. First, and foremost, there needs to be more awareness of CBI in general. There were a few students in these pilot classes who had no idea what they were a part of until the CBI survey was distributed to them at the end of the semester. Community Bridge Initiative classes should have an introductory in-class presentation from a representative from the Center for Civic Engagement and Service-Learning explaining the significance of a sustainability-based service-learning program, what the opportunities and benefits are for students enrolled in a CBI course, and what impacts can be made on the community with these projects. Future presentations could also include what has been done with past projects to show what has been accomplished by other students. Administrators for SCI related how once students understood what they were a part of, student motivation and enthusiasm for these projects increased. The Community Bridge Initiative could also be advertised to incoming freshman in conjunction with their orientation week to increase awareness and develop interest in registering for these types of classes. Likewise, CBI could be advertised campus-wide so that all students are aware of opportunities to take CBI courses and the benefits associated with them.

Along with greater student awareness, USU faculty should also be informed of the benefits of teaching a CBI course. Explaining how CBI courses help them to teach better by giving practical application to their theoretical course content gives students an improved method to learn, leading to increased student satisfaction. The Community Bridge Initiative also makes teaching easier by lining up the faculty with a set project and partner, laying the groundwork so the instructor doesn't have to. Administrators for CBI should also think about having kick-off events like many universities do with their own sustainability-based service-learning programs. An event like this could also spread awareness and generate excitement for the program and its potential for real changes to be made within the community. Likewise, CBI might have greater success with more community awareness of the program. As the SCI group stated, a program like this creates positive press both for the university and the city and having community support will have the program gain traction (Larco, 2015a). This could be done through a variety of methods such as the kick-off event, increased media coverage, and other education measures.

Second, CBI should be expanded into more university courses and community issues. As students overwhelmingly enjoyed the hands-on approach associated with the CBI courses, they all agreed that they would like to see CBI introduced into more university courses. Students found value in both major-specific and breadth CBI classes so it is recommended that CBI should be utilized in all courses no matter the course purpose. As expressed above, using a hands-on project is an effective way for students to learn and for teachers to instruct. However, many students expressed satisfaction with projects that specifically prepared them for their intended careers so it might be useful for

CBI to focus more on courses where students and faculty benefit the most. Greater care should also be made to make sure that course content fully matches the project, as some students couldn't see the connection between the two. Administrators for CBI should also consider student demographics when designing course content. Some students didn't have any problems with the service hours required, but some definitely felt that the requirements were too much to handle with their full-time jobs and family commitments. Students also liked the idea of expanding into different community issues as many liked feeling a part of the community and enjoyed making a difference. As a result of the community needs assessment in Chapter 2, CBI now has an excess of partners and projects to choose from, giving CBI the potential to expand exponentially.

The Community Bridge Initiative also has the opportunity to expand into offsite USU campuses. Utah State University has over 30 satellite campuses throughout the state of Utah as well as interactive course broadcasts, allowing classes to be taught almost anywhere. The Community Bridge Initiative could be applied to these locations with minor adjustments. Though CBI projects are usually centered on an entire class's efforts, projects could be split up for individual students. For example, as discussed above in the GIS Research Projects course, only a few students chose to be involved in CBI and each student tackled a different project. Though it was a solitary effort, these students still reacted favorably to the project as they felt that the hands-on application was useful to their education. Special care should be used within these situations, however, to ensure that students still understand what CBI is and what potential their work has. It would be helpful if a representative from USU's Center for Civic Engagement and Service-Learning could visit these sites and give the same presentation for the Logan campus

courses, or at least, ensure that the instructor can relay the same information to their class. Though it might be easier to focus on getting CBI established at USU's Logan campus first, having multiple campuses all tackling community issues will only further strengthen the CBI project as well as providing a more sustainable future for Utah's residents.

For future areas of research as CBI continues to grow, interviews or surveys could be administered to city and community partners to determine their reactions to this program once projects were completed. Having this information will allow CBI to continue to monitor the effectiveness of this program and ensure that both sides of the partnership are mutually benefitting. More in-depth interviews of community partners or city organizations could also be done to gain a more specialized understanding of what issues communities are facing and what areas they could use help in. Individual student interviews could also be incorporated to obtain a better idea of student reactions to being in a CBI course.

Overall, however, with the initial success of the pilot semester and the conclusions of this research, CBI has enough of a platform to thrive. With the community support and student validation of this program, CBI has the potential to serve the community of Logan by addressing real and pressing community issues by employing student and faculty manpower, while simultaneously giving students an opportunity to learn by doing and gain valuable work experience for their future careers. The Community Bride Initiative has the power to transform Logan's dynamic and bridge the gap between the university and the city, helping transform Logan into a more sustainable community.

For readers wishing to implement this type of program at other universities or organizations, the following recommendations are suggested based on the results of this thesis:

1. Conduct a needs assessment with community organizations to determine what issues the community is facing and what organizations would like help with.
2. Pilot the initiative. This could be done as a partnership between a university and a city government, like in this situation, or partnerships could be set up with any two entities wishing to strengthen their relationship.
3. Gather needed projects from selected partners. Make sure that these projects are feasible and can be reasonably undertaken by the groups assigned to these projects. If projects are assigned to university students, make sure that the project matches the course content so students will be sufficiently motivated.
4. Once the projects are assigned, ensure everyone in the partnership is aware of what they are involved in and what potential the project has to both partners. Greater awareness will bring greater enthusiasm and responsibility to the project.
5. After the project is finished, assess both sides of the partnership to determine reactions to the project. Determine what worked and what didn't work for both partners and use these responses to better formulate the next project and partnership. Having these analyses will improve the possibility of success for the intended program.

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APPENDICES

APPENDIX A

COMMUNITY PARTNER NEEDS ASSESSMENT SURVEY INSTRUMENT

Introduction

Hello! My name is Julie Koldewyn and I'm a graduate student at Utah State University (USU). I am working with the Center for Civic Engagement and Service-Learning on the Community Bridge Initiative (CBI), a new initiative to bridge the divide between USU and the Logan community and build a stronger mutual relationship. This program will give USU students and faculty the opportunity to tackle high priority projects identified by local non-profits, residents and community leaders, while providing students with real-world experience and better access to jobs.

You've been selected to complete this survey because you are a particular leader in your field. Your expertise and knowledge that reflect your organization's goals will help to ensure that USU is responsive to real needs in the Logan community. Your responses will remain confidential. Participation is entirely voluntary. You may refuse to participate or withdraw at any time without consequence. The survey will take approximately 10-15 minutes to complete.

If you have any questions or concerns about your rights and would like to contact someone other than the researchers, you may contact the IRB administrator at (435) 797-0567 or email irb@usu.edu; refer to IRB protocol #5820. Feel free to contact me at juliekoldewyn@gmail.com for further study information.

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"Developing engaged citizens through service and education."

Survey

I would like to begin this survey by asking you a few questions about your organization.

1) First, what is the name of your organization?

2) Second, what is the mission/purpose of your organization?

3) What community efforts/initiatives is your organization involved with?

4) What are the highest priority issues your organization is currently addressing?

5) What issues does your organization expect to face in the next 5 years?

Next, I'd like to ask you how your organization operates.

6) How do you go about accomplishing the goals of your organization?

7) Have you collaborated with other organizations or individuals to accomplish your goals? ____ yes _____no
    a. If so, please list local partners you frequently work with.

Now, I would like to ask you about your interest in working with Utah State University.

8) Are you interested in partnering with USU students and faculty to work on issues or projects within your organization? ____ yes _____no
    a. If so, what would you like to work on together? (Reduced energy use, education, urban planning, local food sourcing, etc.)

9) Given that this would be a partnership, what resources could you or your organization provide? (Office space, mileage reimbursement, internships, etc.)

Finally, I'd like to ask you a few specific questions about your organization and yourself.

10) What is the size of your organization?

11) What is your organization's annual operating budget?

12) Where does your funding come from? (Federal, state, local, private foundations, etc.) Please estimate in percentages.

13) How long have you been working in this field? _____ years

14) How long have you been at this specific organization? _____years

15) If I have additional questions about your organization, would you be willing to talk to me? ____ yes _____no

    a. If so, please list your preferred contact information below.

Thank you for taking the time to complete this survey! If you would like to receive more information about USU's efforts with this initiative or serve on an advisory committee, please list your email below:

Additionally, if you would like to receive a summary of the survey results, please write in your name and mailing address.

APPENDIX B

COMMUNITY PARTNER SURVEY EXAMPLE

Survey

I would like to begin this survey by asking you a few questions about your organization.

1) First, what is the name of your organization?

(Environmental Organization #1)

2) Second, what is the mission/purpose of your organization?

The mission of [information withheld] is to provide programs for all ages that develop a stewardship and appreciation for the natural world.

3) What community efforts/initiatives is your organization involved with?

-Clean Air for Cache Valley	-Utah Public Radio –Wild about Utah
-No Child Left Inside	
-Utah Water Watch	

4) What are the highest priority issues your organization is currently addressing?

Increasing our earned income
Increasing the attendance of our programs
Build our annual budget through planned giving and endowment
Hire more full-time staff

5) What issues does your organization expect to face in the next 5 years?

Sustainable growth – growing our full time staff
Continued consideration for new and updated facilities

Next, I'd like to ask you how your organization operates.

6) How do you go about accomplishing the goals of your organization?

Each year the Director of Education and the Executive Director create a work plan to lay out their expected goals and the objectives that are measurable to reach them.

7) Have you collaborated with other organizations or individuals to accomplish your goals? __X__ yes _____no
    a. If so, please list local partners you frequently work with.

Bridgerland Audubon, Logan City Library, USU, USU ORP, Rock Haus, Round Rocks, Spirit Goat, Café Ibis, etc.

Now, I would like to ask you about your interest in working with Utah State University.

8) Are you interested in partnering with USU students and faculty to work on issues or projects within your organization? __X__ yes _____no
    a. If so, what would you like to work on together? (Reduced energy use, education, urban planning, local food sourcing, etc.)

Grants; partner grants for educational programming Education; partner teachers/naturalists for community programs Volunteers; students and student groups can volunteer with the nature center

9) Given that this would be a partnership, what resources could you or your organization provide? (Office space, mileage reimbursement, internships, etc.)

Office space for meetings, building rentals, knowledgeable staff for lectures, teaching, etc.

Finally, I'd like to ask you a few specific questions about your organization and yourself.

10) What is the size of your organization?

2 full-time staff, 1 UCC intern, part-time preschool teacher, seasonal summer staff

11) What is your organization's annual operating budget?

$120,000 - $140,000

12) Where does your funding come from? (Federal, state, local, private foundations, etc.) Please estimate in percentages.

Earned income – 30%, Private donations - 50%, Grants – 20%

13) How long have you been working in this field? ___3____ years
14) How long have you been at this specific organization? __+1____years
15) If I have additional questions about your organization, would you be willing to talk to me? __X__ yes _____no
    a. If so, please list your preferred contact information below.

[information withheld]

Thank you for taking the time to complete this survey! If you would like to receive more information about USU's efforts with this initiative or serve on an advisory committee, please list your email below:

[information withheld]

Additionally, if you would like to receive a summary of the survey results, please write in your name and mailing address.

[information withheld]

APPENDIX C

COMMUNITY BRIDGE INITIATIVE STUDENT SURVEY INSTRUMENT

Community Bridge Initiative (CBI) Student Survey Assessment

This semester, your class participated in a specific project that was part of a partnership between the Center for Civic Engagement and Service Learning, several USU classes and the City of Logan. This partnership is called Community Bridge Initiative (CBI). The CBI program allows the city to partner with USU on selected problems within the community and then pairs those issues with a complementary university course. The university course then applies student skills and manpower to tackle these issues, giving students the opportunity to gain real world practice and hands-on experience. In this partnership with the city, USU has the chance to effect real change within the community, creating a more sustainable future. For a copy of the letter of information, please contact Julie Koldewyn at juliekoldewyn@gmail.com.

Please rate your **level of confidence** before and **as a result of this class** in the following areas by circling the appropriate choice in each row and column:

1 = Not at all confident
2 = Slightly confident
3 = Neutral
4 = Very confident
5 = Completely confident

Skill	Before					Now				
Working in groups	1	2	3	4	5	1	2	3	4	5
Working with various stakeholders in the community	1	2	3	4	5	1	2	3	4	5
Implementing lasting change	1	2	3	4	5	1	2	3	4	5
Creative thinking	1	2	3	4	5	1	2	3	4	5
Promoting individual environmental behaviors	1	2	3	4	5	1	2	3	4	5
Fostering community-scale environmental behaviors	1	2	3	4	5	1	2	3	4	5
Applying university research to foster community change	1	2	3	4	5	1	2	3	4	5
Networking with professional contacts	1	2	3	4	5	1	2	3	4	5

Applying hands-on, real world experience	1	2	3	4	5	1	2	3	4	5
Fostering a personal sense of community issues	1	2	3	4	5	1	2	3	4	5
Cultivating a sense of your role as an active citizen	1	2	3	4	5	1	2	3	4	5

Did this class positively impact you (circle one)? Y N

Would you take a Community Bridge Initiative (CBI) class again (circle one)? Y N

Would you list this experience on your resume for future employment (circle one)? Y N

Are you (circle one): M F

Do you feel that this class was more effective in communicating course content in comparison to traditional USU classes (circle one)? Y N

If so, please explain:

Please provide any feedback about the Community Bridge Initiative to help us improve this program in future years:

APPENDIX D

COMMUNITY BRIDGE INITIATIVE STUDENT SURVEY EXAMPLE

Community Bridge Initiative (CBI) Student Survey Assessment

This semester, your class participated in a specific project that was part of a partnership between the Center for Civic Engagement and Service Learning, several USU classes and the City of Logan. This partnership is called Community Bridge Initiative (CBI). The CBI program allows the city to partner with USU on selected problems within the community and then pairs those issues with a complementary university course. The university course then applies student skills and manpower to tackle these issues, giving students the opportunity to gain real world practice and hands-on experience. In this partnership with the city, USU has the chance to effect real change within the community, creating a more sustainable future. For a copy of the letter of information, please contact Julie Koldewyn at juliekoldewyn@gmail.com.

Please rate your **level of confidence** before and **as a result of this class** in the following areas by circling the appropriate choice in each row and column:

1 = Not at all confident
2 = Slightly confident
3 = Neutral
4 = Very confident
5 = Completely confident

Skill	Before					Now				
Working in groups	1	2	3	4	**5**	1	2	3	4	**5**
Working with various stakeholders in the community	1	**2**	3	4	5	1	2	**3**	4	5
Implementing lasting change	1	**2**	3	4	5	1	2	3	**4**	5
Creative thinking	1	2	3	**4**	5	1	2	3	4	**5**
Promoting individual environmental behaviors	1	**2**	3	4	5	1	**2**	3	4	5
Fostering community-scale environmental behaviors	1	**2**	3	4	5	1	2	**3**	4	5
Applying university research to foster community change	1	**2**	3	4	5	1	2	3	**4**	5
Networking with professional contacts	1	**2**	3	4	5	1	2	**3**	4	5

Applying hands-on, real world experience	1	2	(3)	4	5	1	2	3	(4)	5
Fostering a personal sense of community issues	1	2	(3)	4	5	1	2	3	4	(5)
Cultivating a sense of your role as an active citizen	1	2	(3)	4	5	1	2	3	4	(5)

Did this class positively impact you (circle one)? (Y) N

Would you take a Community Bridge Initiative (CBI) class again (circle one)? (Y) N

Would you list this experience on your resume for future employment (circle one)? (Y) N

Are you (circle one): M (F)

Do you feel that this class was more effective in communicating course content in comparison to traditional USU classes (circle one)? (Y) N

If so, please explain:

Please provide any feedback about the Community Bridge Initiative to help us improve this program in future years:

APPENDIX E

STATISTICAL FIGURES FROM CBI STUDENT SURVEYS

T-Test ALL COURSES

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Skill 1	before	3.94	93	.857	.089
	now	4.28	93	.632	.066
Skill 2	before	2.79	92	.884	.092
	now	3.87	92	.699	.073
Skill 3	before	3.02	90	.834	.088
	now	3.83	90	.768	.081
Skill 4	before	3.62	91	.952	.100
	now	3.99	91	.876	.092
Skill 5	before	3.04	94	.972	.100
	now	4.00	94	.816	.084
Skill 6	before	2.52	92	.943	.098
	now	3.71	92	.871	.091
Skill 7	before	2.49	93	.940	.097
	now	3.69	93	.884	.092
Skill 8	before	2.92	93	1.096	.114
	now	3.68	93	.887	.092
Skill 9	before	3.52	93	.928	.096
	now	4.32	93	.725	.075
Skill 10	before	3.02	93	.807	.084
	now	4.03	93	.758	.079
Skill 11	before	2.88	93	.895	.093
	now	4.14	93	.716	.074

Paired Samples Correlations

Skill	N	Correlation	Sig.
Skill 1 before & now	93	.656	<.001
Skill 2 before & now	92	.490	<.001
Skill 3 before & now	90	.444	<.001
Skill 4 before & now	91	.662	<.001
Skill 5 before & now	94	.474	<.001
Skill 6 before & now	92	.429	<.001
Skill 7 before & now	93	.449	<.001
Skill 8 before & now	93	.601	<.001
Skill 9 before & now	93	.315	.002
Skill 10 before & now	93	.478	<.001
Skill 11 before & now	93	.365	<.001

Paired Samples Test

		Paired Differences			
					95% Confidence Interval of the Difference
		Mean	Std. Deviation	Std. Error Mean	Lower
Skill 1	before - now	-.344	.651	.068	-.478
Skill 2	before - now	-1.076	.815	.085	-1.245
Skill 3	before - now	-.811	.847	.089	-.988
Skill 4	before - now	-.374	.755	.079	-.531
Skill 5	before - now	-.957	.926	.096	-1.147
Skill 6	before - now	-1.185	.971	.101	-1.386
Skill 7	before - now	-1.194	.958	.099	-1.391
Skill 8	before - now	-.753	.905	.094	-.939
Skill 9	before - now	-.806	.981	.102	-1.008
Skill 10	before - now	-1.011	.801	.083	-1.176
Skill 11	before - now	-1.258	.920	.095	-1.447

Skill	Paired Differences: 95% Confidence Interval of the Difference: Upper	t	df	Sig. (2-tailed)
Skill 1 before & now	-.210	-5.097	92	<.001
Skill 2 before & now	-.907	-12.662	91	<.001
Skill 3 before & now	-.634	-9.089	89	<.001
Skill 4 before & now	-.216	-4.721	90	<.001
Skill 5 before & now	-.768	-10.019	93	<.001
Skill 6 before & now	-.984	-11.699	91	<.001
Skill 7 before & now	-.996	-12.009	92	<.001
Skill 8 before & now	-.566	-8.023	92	<.001
Skill 9 before & now	-.604	-7.929	92	<.001
Skill 10 before & now	-.846	-12.173	92	<.001
Skill 11 before & now	-1.069	-13.193	92	<.001

T-Test HUMAN BEHAVIOR IN THE SOCIAL ENVIRONMENT

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Skill 1	before	3.92	13	1.038	.288
	now	4.69	13	.480	.133
Skill 2	before	2.77	13	1.013	.281
	now	4.08	13	.494	.137
Skill 3	before	2.77	13	.832	.231
	now	4.15	13	.376	.104
Skill 4	before	3.54	13	.660	.183
	now	4.54	13	.519	.144
Skill 5	before	2.46	13	.877	.243
	now	3.62	13	.768	.213
Skill 6	before	2.08	13	.760	.211
	now	3.77	13	.725	.201
Skill 7	before	2.15	13	1.068	.296
	now	4.15	13	.555	.154
Skill 8	before	3.00	13	1.155	.320
	now	4.00	13	.577	.160
Skill 9	before	3.23	13	.725	.201
	now	4.46	13	.519	.144
Skill 10	before	2.46	13	.776	.215
	now	4.31	13	.630	.175
Skill 11	before	2.15	13	.987	.274
	now	4.54	13	.519	.144

Paired Samples Correlations

		N	Correlation	Sig.
Skill 1	before & now	13	.450	.123
Skill 2	before & now	13	.372	.211
Skill 3	before & now	13	.390	.188
Skill 4	before & now	13	.299	.320
Skill 5	before & now	13	.038	.902
Skill 6	before & now	13	.489	.090
Skill 7	before & now	13	.379	.202
Skill 8	before & now	13	.750	.003
Skill 9	before & now	13	.136	.657
Skill 10	before & now	13	.367	.218
Skill 11	before & now	13	.476	.100

Paired Samples Test

		Paired Differences			
					95% Confidence Interval of the Difference
		Mean	Std. Deviation	Std. Error Mean	Lower
Skill 1	before - now	-.769	.927	.257	-1.329
Skill 2	before - now	-1.308	.947	.263	-1.880
Skill 3	before - now	-1.385	.768	.213	-1.849
Skill 4	before - now	-1.000	.707	.196	-1.427
Skill 5	before - now	-1.154	1.144	.317	-1.845
Skill 6	before - now	-1.692	.751	.208	-2.146
Skill 7	before - now	-2.000	1.000	.277	-2.604
Skill 8	before - now	-1.000	.816	.226	-1.493
Skill 9	before - now	-1.231	.832	.231	-1.734
Skill 10	before - now	-1.846	.801	.222	-2.330
Skill 11	before - now	-2.385	.870	.241	-2.910

Paired Samples Test

		Paired Differences			
		95% Confidence Interval of the Difference			
		Upper	t	df	Sig. (2-tailed)
Skill 1	before - now	-.209	-2.993	12	.011
Skill 2	before - now	-.735	-4.977	12	<.001
Skill 3	before - now	-.921	-6.501	12	<.001
Skill 4	before - now	-.573	-5.099	12	<.001
Skill 5	before - now	-.463	-3.638	12	.003
Skill 6	before - now	-1.238	-8.124	12	<.001
Skill 7	before - now	-1.396	-7.211	12	<.001
Skill 8	before - now	-.507	-4.416	12	.001
Skill 9	before - now	-.728	-5.333	12	<.001
Skill 10	before - now	-1.362	-8.314	12	<.001
Skill 11	before - now	-1.859	-9.886	12	<.001

T-Test Living with Wildlife

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Skill 1	before	3.97	68	.810	.098
	now	4.26	68	.638	.077
Skill 2	before	2.82	67	.869	.106
	now	3.85	67	.702	.086
Skill 3	before	3.15	65	.815	.101
	now	3.83	65	.802	.099
Skill 4	before	3.61	66	1.021	.126
	now	3.91	66	.924	.114
Skill 5	before	3.12	69	.993	.120
	now	4.06	69	.838	.101
Skill 6	before	2.54	67	.859	.105
	now	3.67	67	.911	.111
Skill 7	before	2.57	68	.919	.111
	now	3.59	68	.918	.111
Skill 8	before	2.90	68	1.067	.129
	now	3.60	68	.900	.109
Skill 9	before	3.57	68	.935	.113
	now	4.34	68	.765	.093
Skill 10	before	3.06	68	.731	.089
	now	4.00	68	.792	.096
Skill 11	before	2.96	68	.818	.099
	now	4.07	68	.739	.090

Paired Samples Correlations

		N	Correlation	Sig.
Skill 1	before & now	68	.767	<.001
Skill 2	before & now	67	.527	<.001
Skill 3	before & now	65	.567	<.001
Skill 4	before & now	66	.744	<.001
Skill 5	before & now	69	.522	<.001
Skill 6	before & now	67	.461	<.001
Skill 7	before & now	68	.567	<.001
Skill 8	before & now	68	.563	<.001
Skill 9	before & now	68	.371	.002
Skill 10	before & now	68	.593	<.001
Skill11	before & now	68	.474	<.001

Paired Samples Test

		Paired Differences			
					95% Confidence Interval of the Difference
		Mean	Std. Deviation	Std. Error Mean	Lower
Skill 1	before - now	-.294	.520	.063	-.420
Skill 2	before - now	-1.030	.778	.095	-1.220
Skill 3	before - now	-.677	.752	.093	-.863
Skill 4	before - now	-.303	.701	.086	-.475
Skill 5	before - now	-.942	.906	.109	-1.160
Skill 6	before - now	-1.134	.919	.112	-1.359
Skill 7	before - now	-1.015	.855	.104	-1.222
Skill 8	before - now	-.706	.931	.113	-.931
Skill 9	before - now	-.765	.964	.117	-.998
Skill 10	before - now	-.941	.689	.083	-1.108
Skill 11	before - now	-1.118	.802	.097	-1.312

Paired Samples Test

		Paired Differences			
		95% Confidence Interval of the Difference			
		Upper	t	df	Sig. (2-tailed)
Skill 1	before - now	-.168	-4.664	67	<.001
Skill 2	before - now	-.840	-10.836	66	<.001
Skill 3	before - now	-.491	-7.255	64	<.001
Skill 4	before - now	-.131	-3.512	65	.001
Skill 5	before - now	-.724	-8.641	68	<.001
Skill 6	before - now	-.910	-10.099	66	<.001
Skill 7	before - now	-.808	-9.786	67	<.001
Skill 8	before - now	-.480	-6.250	67	<.001
Skill 9	before - now	-.531	-6.543	67	<.001
Skill 10	before - now	-.775	-11.272	67	<.001
Skill 11	before - now	-.924	-11.496	67	<.001

T-Test GIS RESEARCH PROJECTS AND COMMUNICATING SUSTAINABILITY

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Skill 1	before	3.75	12	.965	.279
	now	3.92	12	.515	.149
Skill 2	before	2.67	12	.888	.256
	now	3.75	12	.866	.250
Skill 3	before	2.58	12	.793	.229
	now	3.50	12	.798	.230
Skill 4	before	3.75	12	.866	.250
	now	3.83	12	.718	.207
Skill 5	before	3.25	12	.754	.218
	now	4.08	12	.669	.193
Skill 6	before	2.92	12	1.379	.398
	now	3.83	12	.835	.241
Skill 7	before	2.42	12	.900	.260
	now	3.75	12	.866	.250
Skill 8	before	3.00	12	1.279	.369
	now	3.75	12	1.055	.305
Skill 9	before	3.50	12	1.087	.314
	now	4.08	12	.669	.193
Skill 10	before	3.42	12	.996	.288
	now	3.92	12	.669	.193
Skill 11	before	3.25	12	.866	.250
	now	4.08	12	.669	.193

Paired Samples Correlations

		N	Correlation	Sig.
Skill 1	before & now	12	.503	.096
Skill 2	before & now	12	.473	.120
Skill 3	before & now	12	-.072	.824
Skill 4	before & now	12	.512	.089
Skill 5	before & now	12	.316	.318
Skill 6	before & now	12	.382	.221
Skill 7	before & now	12	.262	.410
Skill 8	before & now	12	.741	.006
Skill 9	before & now	12	.188	.559
Skill 10	before & now	12	.603	.038
Skill 11	before & now	12	.589	.044

Paired Samples Test

		Paired Differences			
					95% Confidence Interval of the Difference
		Mean	Std. Deviation	Std. Error Mean	Lower
Skill 1	before - now	-.167	.835	.241	-.697
Skill 2	before - now	-1.083	.900	.260	-1.655
Skill 3	before - now	-.917	1.165	.336	-1.657
Skill 4	before - now	-.083	.793	.229	-.587
Skill 5	before - now	-.833	.835	.241	-1.364
Skill 6	before - now	-.917	1.311	.379	-1.750
Skill 7	before - now	-1.333	1.073	.310	-2.015
Skill 8	before - now	-.750	.866	.250	-1.300
Skill 9	before - now	-.583	1.165	.336	-1.323
Skill 10	before - now	-.500	.798	.230	-1.007
Skill 11	before - now	-.833	.718	.207	-1.289

Paired Samples Test

		Paired Differences			
		95% Confidence Interval of the Difference			
		Upper	t	df	Sig. (2-tailed)
Skill 1	before - now	.364	-.692	11	.504
Skill 2	before - now	-.511	-4.168	11	.002
Skill 3	before - now	-.177	-2.727	11	.020
Skill 4	before - now	.420	-.364	11	.723
Skill 5	before - now	-.303	-3.458	11	.005
Skill 6	before - now	-.083	-2.421	11	.034
Skill 7	before - now	-.652	-4.304	11	.001
Skill 8	before - now	-.200	-3.000	11	.012
Skill 9	before - now	.157	-1.735	11	.111
Skill 10	before - now	.007	-2.171	11	.053
Skill 11	before - now	-.377	-4.022	11	.002