Evaluating Reactions to Community Bridge Initiative Pilot Classes

Julie Koldewyn, Roslynn Brain, Kate Stephens

Abstract

Does participating in an integrated service-learning project aimed at improving local sustainability issues result in significant professional real-world application for students? This study aimed to answer that question by evaluating student reactions to pilot classes featuring a sustainability-based service-learning program, 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, natural resources and sociology. Results revealed that of all students responding, 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 courses. This article reveals additional student perspectives and potential benefits from implementing the CBI program in a university setting.
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Introduction

*T*hough there are many interpretations of the term *service-learning*, Jacoby's *(1996) Service-Learning in Higher Education: Concepts and Practices* provides one concise but thorough definition. This author conceives service-learning as "a form of experiential education in which students engage in activities that address human and community needs together with structured opportunities intentionally designed to promote student learning and development" *(p. 5)*. 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 benefit. These experiences can be individual experiences or campuswide initiatives that can range from short-term, one-time occurrences to semester-long, year-long, or even longer commitments. Although one could compare internships and fieldwork to service-learning, it is argued that service-learning differs in that through it, learning and service are equal to, and promote, each other *(Sigmon, 1994)*. Each side must be equally represented and mutually beneficial to the other. Butin *(2010)* echoes this definition

of service-learning as a "type of engaged learning that embraces the possibilities of conjoint civic renewal and academic betterment" *(p. xiv)*. Clearly, service-learning must address the needs of both the community and the student in order to be successfully implemented. Although community gains are important, specific benefits of service-learning to students include opportunities to "practice critical thinking skills and apply learning in real-world settings" as well as being challenged "to work collegially, communicate successfully, and acquire and exercise new skills" *(Jenkins & Sheehey, 2011, p. 52)*.

Godfrey, Illes, and Berry *(2005)* describe the "4 Rs" *(p. 309)* of service-learning that are essential to a successful service-learning experience as reality, reflection, reciprocity, and responsibility. *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 their service-learning experience and how their life has changed because of it, whether positively or negatively. *Reciprocity* is involved in making sure that both the student and the recipient gained something from their experience. If the experience is one-sided, the service-learning aspect has been 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. Although there are certainly more aspects related to service-learning, these "4 Rs" provide a useful framework for enabling 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 & Poulsen, 1989, p. 1)*. Although 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" *(p. 301)*.

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 *(2015)* 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" *(para, 5)*. 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 *(Schmidt, 2009)*. This was succinctly summarized in the statement, "As colleges add green majors and minors, classes fill up" *(Schmidt, 2009, p. 1)*.

In relation to sustainability, the city of Logan, Utah, where Utah State University is located, faces its own environmental issues. With a population of almost 49,000 and a projected increase of 33,000 by 2040 *(Logan Library, n.d.)*, as well as the city's concave valley and surrounding mountains, Logan often faces some of the worst air in the nation *(Malek, Davis, Martin, & Silva, 2006)*. With this population growth, the city also faces issues relating to land use, traffic, waste disposal, and water pollution *(Hunter & Toney, 2005)*. To combat these environmental issues, 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, para. 4)*. This allows universities to check their progress in comparison to other universities, and in so doing, it works to motivate universities to incorporate more sustainable practices.

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 CBI is based on a similar program at the University of Oregon, called the Sustainable Cities Initiative *(http://sci.uoregon.edu)*, which pairs with a different city each year to tackle various issues related to sustainability. This program has been replicated in 10 other institutions of higher education—the University of Minnesota, University of Iowa, San Diego State University, Penn State University, Earlham College, University of Texas at Austin, Texas A&M, University of Tennessee, University of Maryland, and Augustana College—with more to come *(Koldewyn, 2016)*. To gain more information about this program, a team from Utah

State University, including the author, the USU Center for Civic Engagement and Service-Learning (CCESL) 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 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 the Logan City mayor, Craig Peterson, and the 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 2014, Cockett and Peterson presented the CBI program to the Logan City Council, which resulted in the signing of an official letter of agreement 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, 2015)*.

Consequently, the CBI pilot program was initiated in spring 2015, following the 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 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 (College of Humanities and Social Sciences) and GIS Research Projects, Living With Wildlife, and Communicating Sustainability (College of Natural Resources).

Although CBI involved a new type of service-learning program, service-learning has been established at Utah State University since 2008. Students in the Service-Learning Scholars program 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" *(Utah State University, 2015)*. From 2005 to 2012, enrollment in service-learning courses saw student numbers almost triple, from less than 400 students to over 1,100 students per semester *(R. Schmidt, personal communication, 2015)*. In 2013, CCESL adopted USU's service-learning program, which allowed it to be "the campus hub for community engagement, providing greater institutional vision and direction" *(Utah State University, 2015)*. In addition, compared to

other Utah universities, USU has the highest number of students involved in the service-oriented Americorps program *(K. Stephens, personal communication, 2015).*

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; however, the Community Bridge Initiative 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 the preexisting service-learning program 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, para. 10)*

In one of the first courses identified to partner with CBI, 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 the unique assets of the area and where improvements could be made. Students were responsible for designing the survey, administering it to respondents, and inputting and analyzing responses. 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, personal communication, 2015).*

In 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 5 weeks, students were able to use prac-

tical 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, showing that life-skill development was a real outcome of this experience.

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 under whose supervision they spent 6 hours each trimming city trees. Students were taught how to make correct cuts and then applied their new skills with limited supervision. Students discovered how city trees are managed, learned 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 asked to share their perspectives 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 it benefited 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 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 College of Humanities and Social Sciences and the College of Natural Resources. The course titles included 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. Consequently, no hypothesis was formed *(Hatch, 2002)*. After IRB approval was obtained, a mixed-methods descriptive survey with quantitative and qualitative questions was designed through inputs by the author, 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 on 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 enjoyed the CBI program, how their class compared to traditional USU courses, and specific improvement opportunities for the CBI program.

An introductory PowerPoint presentation was shown by the author at the conclusion of the class for three of the four courses; the fourth course had only two participants, and the instructor gave the researcher their e-mail 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 by the author in class, sent via e-mail 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, received via e-mail, or retrieved

via Qualtrics. Of the 109 participants selected, 94 responded and returned their surveys, resulting in an 86% response rate.

Results were analyzed by the author 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 performed 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 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 a whole for the entire survey population to determine relationships and general patterns. Although 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, p. 31)*. An analysis report was then written summarizing the interpretations that were found.

Results

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 82%. This may have been due to the large class size and the fact that their survey was sent via an e-mail 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 (an upper level class with more in-depth knowledge) 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. Eleven skills were measured: (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. There were five response options: (1) not at all confident, (2) slightly confident, (3) neutral, (4) very confident, and (5) completely confident. Tables 1, 2, 3, and 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 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 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. 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 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	93	<.001
Working with various stakeholders in the community	2.79	3.87	92	<.001
Implementing lasting change	3.02	3.83	90	<.001
Creative thinking	3.62	3.99	91	<.001
Promoting individual environmental behaviors	3.04	4.00	94	<.001
Fostering community-scale environmental behaviors	2.52	3.71	92	<.001
Applying university research to foster community change	2.49	3.69	93	<.001
Networking with professional contacts	2.92	3.68	93	<.001
Applying hands-on, real-world experience	3.52	4.32	93	<.001
Fostering a personal sense of community issues	3.02	4.03	93	<.001
Cultivating a sense of your role as an active citizen	2.88	4.14	93	<.001

Individually, each class was statistically significant in all skills except that in Communicating Sustainability and GIS Research Projects, Skills 1, 4, 9, and 10 were not statistically significant. This could be attributable 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 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 following five questions were asked:

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?

Of the 13 students in Human Behavior in the Social Environment (three 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. Students were taking this class specifically for their major, which may have influenced 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 regard 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, likely 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 had a significantly larger class size than the other classes and therefore may have skewed these results, the outcomes here are still overwhelmingly positive and suggest that most students were satisfied with these 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. Students were 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 5.

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 firsthand 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 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, expressing themes similar to those found in the other pilot classes. And as in 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. Many students didn't realize that they were in a CBI

**Table 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 reserach 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 adn experience than 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 a 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]."

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 6 describes these codes.

Table 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 wiht 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 test."
		"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 regarding 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 to 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 regard to the axial codes formed from these open codes, there were common themes that arose from the courses. 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 are 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. As one student stated, "It made me feel like a researcher because the work we did will have a direct effect on the community." This could also help permanent residents better appreciate Logan's 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 regard 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 could be more intentional in their efforts if they understand the class intent. 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. Finally, 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 benefiting equally.

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

1. To prepare faculty to teach this type of course, it would be useful to present different examples of service-learning and then have instructors determine how their course content could best be applied with this method.

2. 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.

3. 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 regarding what would be required for a mutually successful partnership.

4. 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 com munity and what benefits they can gain individually. This could be done through in-class presentations and/or direct interactions with the community partner.

5. After the project is completed, assessments from both students/faculty and community partners should be performed to determine what worked and what didn't. This will help future projects and inter actions be more successful within the program.

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 interested in improving 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 to foster the desired student learning outcome and partnered community engagement.

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About the Authors

Julie Koldewyn is an education program coordinator at the Natural History Museum of Utah. She received her MS in human dimensions of ecosystem science and management at Utah State University.

Roslynn Brain is a sustainable communities extension specialist in the Department of Environment and Society at Utah State University. She received her Ph.D. in agricultural education and communication from the University of Florida.

Kate Stephens is the assistant director for the Center for Civic Engagement and Service-Learning at Utah State University. She received her MA in environmental education from Prescott College.