

The Feasibility of Virtual Service-Learning

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Abstract

This study assessed attitudes regarding the effectiveness of discipline-based service-learning within the virtual environment. The study, conducted at a comprehensive Midwestern state university, collected data using a Likert-scale survey and reflections. Research on virtual service-learning is sparse making it a field ripe with research opportunities. The quantitative results suggest virtual learners are not provided opportunities for service-learning commensurate with their in-person cohort. For one discipline, the qualitative data suggests there is a need for multiple and synchronous communication, and reflection at multiple points throughout the semester. The study validated literature on the need to use active learning pedagogies across disciplines.

Introduction

Can service learning, a robust and well-established pedagogical practice, be adapted into online learning environments? The question has emerged as the number of online courses have grown in higher education over the last decade. This paper examines the feasibility of service-learning in the virtual environment. The authors, affiliated with different colleges at a comprehensive Midwestern state university, sought to contribute to the scholarship on service learning by investigating the feasibility of service learning. The authors collaborated to carry out a study to assess students' attitudes regarding the effectiveness of discipline-based service-learning within the virtual environment. The disciplines were political science and education; disciplines that tend to embrace active pedagogy. For example, civic engagement including service-learning is well-documented in the political science literature (see Hepburn et al. 2000, Owen 2000, Battistoni and Hudson 1997); however, the majority of the literature is concerned with service-learning carried out in a physical setting rather than completed through distance education. As instructors of on-campus and virtual courses, we wanted to determine if service-learning could be carried out virtually

and, if so, what were the benefits students perceived from their involvement in virtual service-learning.

The question of whether service learning in an online environment is feasible or not is a legitimate one. Adapting service learning from the in-person environment into the online one is not as simple as posting documents online. Service learning is an immersive, challenging, and highly personally involved activity. As a result, relatively few instructors have tried to integrate service learning activities into their classes at the collegiate level. Directing students to decide on service projects, organizing discussions, and coordinating activity is much harder in an asynchronous and distal learning environment. Thus to determine if service learning is viable or not in the online environment, we must first determine if students in the online environment are amenable to attempting service learning, how virtual service learning is organized and deployed, then trace the similarities and differences from in-person to online implementation.

The study and its service-learning project were supported by our university's Provost's Service-Learning Faculty Fellow program. Funded by the Welch Charitable Fund, the Fellow's purpose is to provide an opportunity for faculty to gain an appreciation and understanding of service-learning with the intent of integrating and applying this knowledge to the institution's curricular, research and service functions. Our institution has been formally designated by the Carnegie Foundation as an "engaged" institution. As a Carnegie engaged institution, we are regularly encouraged to explore new ways of engaging students. Because of the large virtual student population at our institution, it is important that online students be exposed to the same opportunities as in-person students, including service learning opportunities.

Review of the Literature

The benefits of service-learning for higher education students taking classes on a physical campus are relatively abundant in a review of the literature. This, however, is not the case for students enrolled in virtual classes. This brief review states our selected service-learning definition, shares benefits of service-learning related to the study's purpose, and discusses findings on discipline-based service-learning.

Service-Learning Defined

Bountiful definitions of service-learning exist in the literature. From the varied definitions, we selected one that captured the study's involvement in civic education, the community, and purposeful reflection. The selected definition was "a teaching and learning strategy that integrates meaningful community service with instruction and reflection to enrich the learning experience, teach civic

responsibility, and strengthen communities”
(<http://www.servicelearning.org/what-is-service-learning>).

General Benefits of Service-Learning Related to the Study

Crabtree (2008) focused on a historical examination in an attempt to link service-learning, civic engagement, and international education. His review of the literature found that community service within the framework of a discipline offered citizenship and social responsibility. Eyler and Giles (1999) indicated civic participation was an important outcome of service-learning.

Evidence of positive institutional change, through service-learning programs, was found by Erlich (as cited in Crabtree). An example of positive institutional change, discovered by Bringle, Hatcher, and Muthiah (2010), examined the benefits of service-learning on the retention of first-year college students. Findings from their study revealed that “...first-year students completing a service-learning course had higher intention to re-enroll at their campus, and that they were more likely to re-enroll the following academic year...” (p. 47).

Another benefit of service-learning is student production of research for communities and organizations (Crabtree, 2008). Parker and Altman-Dautoff (2007) stated that “an important learning outcome for service-learning classes is cognitive learning...” (p. 40). These authors also stated that Astin contended service-learning has an impact on the affective domain. For example, a personal connection to people or groups may exist. Additionally, reciprocal learning and growth for faculty, community members, and students occurs with service-learning. O’Grady (2000) noted that service learning implemented in a real community could help deconstruct dominant cultural ideology. With its real-world focus, pedagogy on service learning that emphasizes critical reflection and reciprocity can help to structure community-based learning (Boyle-Baise, M., & Kilbane, J., 2000). It was also found that students’ exhibited greater personal transformation when they were involved in service learning as compared to courses where service-learning was not present (Holland & Gelmon, 1998). Research indicates there are multiple benefits to service learning, but do specific disciplines promote their benefits?

Discipline-Based Service-Learning

Becher and Trowler (2001) noted that disciplines establish cultural identity that manifest disciplinary differences that have an effect on service-learning. Empirical research could better identify these differences; however, Butin (2006) found that some disciplines are not for service-learning. Similarly, Antonio, Astin, and Cress (2000) stated that certain fields, such as education, are more inclined

to embrace service-learning versus the fields of mathematics and sciences. A study that examined faculty perceptions of civic engagement and service-learning across four disciplinary areas found that "...faculty interpretations and understandings of the goals for and impediments to the incorporation of active learning pedagogies vary significantly across disciplines" (Buzinski, et al., 2013, p. 61). The authors of this study recommended three approaches be used to support faculty in understanding the relevancy of service-learning. The first of these recommendations is "structural changes may be in order to make different disciplinary locations more hospitable to civic engagement and service-learning" (p. 63). The second recommendation is that "civic engagement and service-learning cannot be presented in 'once size fits all' language. Active learning pedagogies need to be promoted through language that resonates with different disciplinary identities" (p. 64). The third and final recommendation states that "motivation for the adoption of these pedagogical styles cannot come only from external requirements, but also come from within and across the disciplines" (p. 65).

Discipline-based service learning is thus a valuable pedagogical tool that can enhance learning, engagement, and satisfaction among students. Virtual service learning should then be particularly useful, since online students may lack opportunities for engagement and problem-based learning. While multiple researchers have documented varied benefits of service-learning, research regarding the effectiveness of service learning carried out in the virtual environment is lacking. Can virtual service learning provide the same benefits that in-person students receive? What are virtual students' attitudes regarding the effectiveness of service-learning with the virtual environment? To investigate these questions, we present evidence from our virtual service learning pilot study.

Methodology

Data were collected from students using two different methods. A Likert-scale survey was administered to all students enrolled in the university's Virtual College, and qualitative data was collected from the students in the courses where the service-learning was embedded. In essence, the control group was defined by enrollment in the Virtual College, while the experiment group included the students involved in the virtual service learning-embedded courses taught by the authors during the spring 2013 semester.

All students actively enrolled in classes in the university's Virtual College were surveyed. A total of 4,786 students were enrolled in online classes as of the 20th day of the academic calendar. The eight question Likert-scale survey that took approximately 5-10 minutes to complete was administered in the first three

weeks and the last two weeks of the spring 2013 semester. All students, whether in the control or experiment group, took the same survey in the pre- and post-test phases of the study. The survey's questions focused on participation in service-learning, benefits of service-learning, and gathered demographic information. T-tests were performed to determine statistical differences between the pre- and post-survey administration samples.

The second method of data collection, derived from the Interest Groups & Lobbying or Diverse Learners classes, where the participants completed the virtual service-learning project. A total of 58 students (N =15 Interest Groups and Lobbying; N = 43 Diverse Learners) were enrolled in these courses. Reflection forms and open-ended evaluations collected the qualitative data. While each class offered its unique discipline-based service learning project, this study did not examine the differential effectiveness of the types of project. Instead, the study sought to find out if virtual service learning, generally speaking, is as effective as in-person service learning. Combining the qualitative responses with the survey data gives a richer sense of not only what worked and what did not in the implementation of virtual service learning, but why.

Service Learning Project – Interest Groups and Lobbying Class

Qualitative data was gathered from the service learning project carried out in the Interest Groups and Lobbying course. This course is a combined undergraduate and graduate class that was offered for the first time as an online course after being offered in-person for the last eight years. Fifteen students enrolled in the class – most were domestic American students coming from Pennsylvania to San Diego, with five of the students in Kansas and within a 200-mile radius of the campus.

From the very beginning, the plan was ambitious. Students would decide on a project, construct a leadership team, develop a plan, and execute it all within the course of a single semester. Unlike the Diverse Learners class, the project was not determined ahead of time. The added requirements made the chances of completing the entire project during the course of the semester challenging, but reasonable within the parameters given to the students.

Students were provided with a four-stage set of instructions for the class, verified as feasible by the university's Center for Teaching Excellence and Learning Technology. Because of the complicating factor of distance, students were given instructions and a venue for communication and planning. Using the Blackboard course management system, the instructor created particular discussion boards, scheduled regular Skype sessions, and established group

document sharing and collaboration tools with wikis, virtual whiteboards, and group e-mails.

Service Learning Project – Diverse Learners Class

Data were also gathered from a second service learning project carried out in two sections of a Diverse Learners class. The total number of participants was forty-three. The Diverse Learners course had been taught virtually for at least six years. The course is required for elementary education and early childhood unified pre-service teachers. Kolb's (1984) Experiential Learning Theory was the theoretical framework selected for the project. This theory was chosen due to the compatibility of its four stages - reflective observation, abstract conceptualization, active experimentation, and concrete experiences - with the need to provide pre-service candidates with a meaningful and realistic clinical-based experience. The experience virtually partnered pre-service teachers in the Diverse Learners course with third and fourth grade students at a low-income school in Mexico.

The materials used for the service learning project included a PowerPoint presentation. The presentation acquainted the pre-service teachers with the selected school and community where the school resided. Two recorded sessions introduced the children to the pre-service candidates, three reflection forms guided the pre-service teachers' reflections regarding course content and the service-learning project, and a culminating project created by the pre-service teachers was used by the Mexican children and their families composed the materials.

The qualitative data gathered from the course for the study was taken from the third and final reflection form. Appendix C contains this data. The reflection form consisted of two questions, although the second question was only used to gather the data. This question asked the participants to reflect on how the project helped to a) connect course content to real-life experiences, b) enhance knowledge to help meet the needs of ALL students, c) hold high expectations for students with diverse backgrounds, and d) be comfortable with students from diverse backgrounds.

Results

Participation was a factor in the survey for both the pre- and post-survey administrations. Only 285 respondents or 3.9% participated in the pre-survey out of a total enrolled virtual population of 4,786. In the post-survey administration, 168 participants from the same pool completed the instrument, for a rate of 1.9%.

Despite low participation numbers, the survey's results were instructive. Appendix A provides the data. When students were asked if they had participated in service-learning projects as part of their high school curriculum, 67% of pre-test respondents said that they had not. The question prompted for service-learning regardless of whether the project was in-person or virtual, so the fact that only 22% of the pre-test respondents indicated they had high school experience with service-learning indicates that students do not come to college with the vocabulary of service-learning. The responses to this question were consistent in the post-survey administration; however, there was a slight increase suggesting students had not experienced service-learning in high school, with 71% (119 out of 168) saying they entered college without having participated in a service-learning project.

When the survey shifted to prompt respondents about their experience with service-learning as part of their college curriculum, the numbers slightly changed. A plurality of respondents in both the pre- and post-survey administrations said they had not taken a service-learning class during their college career. Since many of the students were a) new to the university, and b) virtual only, the numbers are not surprising that indicate service-learning is not an experience known to most college students in this particular subset. However, college does appear to be more of an environment where service-learning is present. When one pays particular attention to the post-survey administration, forty-two percent of respondents indicated they had participated in service learning.

Having established the subset of respondents with experience in service-learning at either the high school or college level, the survey then asked whether virtual service-learning was a new event for those with service-learning experience. In both pre- and post-survey administrations, those with service-learning backgrounds indicated consistently that their primary experience had been in-person. One-seventh of the pre-survey respondents and less than a third of the post-survey respondents indicated they had any online service-learning experience. Therefore, we can confidently say that virtual service learning, at least at one institution, is a relatively new element for students to consider.

The survey's demographic data showed that the students responding to the survey were a representative sample of the university's student population. Female students comprised roughly sixty percent of the university's student body, and female respondents composed around two-thirds of the survey participants. White students also composed the largest number of respondents by far, once again consistent with the university's overall population.

The pre- and post-survey was only one part of the data collection for this study. Next, the results from the reflective components completed in the Interest Groups and Lobbying and Diverse Learners courses are shared. The classes involved in the study were quite different in topic, subject, and intent. Each class displayed different results within its population.

Survey results suggest that one of the significant barriers to implementation of service learning in the online environment is the students themselves. While students with service learning experience are more amenable to trying it online, most online students are unfamiliar with service learning at all and thus loath to attempt a new project of this type. Introducing more service learning literature and examples may help drill better knowledge of service learning into student culture.

Overall Results from the Service Learning Embedded Courses

Using reflection forms and open-ended evaluations, qualitative data was collected in the Interest Groups and Lobbying course as well as in two sections of the Diverse Learners course. The participation rate was 100% or all 58 students.

Results from Interest Groups and Lobbying

Students struggled early to develop ideas and a cohesive culture. One of the inherent challenges in virtual service-learning is the community-building. This is much easier in-person, because students meet face to face at a single established time or set of times. In a virtual environment, students must motivate themselves and keep themselves on a schedule, which often becomes very erratic. Many students participated for a day or two of intense activity, and then withdrew for weeks or more depending on course deadlines. Although monthly deadlines were established to require regular activity, most of the activity was still clustered within two days of the time limit, making it incredibly difficult to mediate disagreement, contribute to the discussion, and guide students. The trend continued throughout the rest of the semester, where student participation was sporadic and usually required a prompt from the instructor.

Students never fully bought into the service-learning project. Whether it was because of the unfamiliarity with service-learning that students had or their particular disinterest in the project, except for two students, there was little interest or initiative shown by the students. The student evaluation responses reflected that disinterest well. Student leadership was one of the primary complaints among the students. Open-ended responses focused on the fact that establishing co-leaders among students was a wise strategy and expressed frustration that other students were not as actively involved as they were. Peer

motivation, one of the core benefits of service-learning projects, is much tougher to engage in when virtually learning.

Two quotes sum up the students' struggles with adapting to virtual service-learning:

“Most of the posts in planning this project seemed to be one or two people making suggestions and everyone else agreeing. There was little critique or discussion. This made active leaders even more important; while choosing leaders was simple, encouraging participation was much more difficult.” (Anonymous, 2013)

-AND-

“One of the major problems of this assignment was that it was a virtual class. We don't know each other, so we have no idea of the strengths, weaknesses, or interests of the other group members. We also don't know the schedules of our classmates and when they could work on the project or how much time they could put into the project. The virtual classroom seems like an inappropriate place for this type of assignment. (Anonymous, 2013)

These quotes best summarize the comments made by students in the virtual Interest Groups and Lobbying class and point to the difficulties in integrating service-learning into the online environment. Student coordination is difficult enough in the traditional classroom when students meet for roughly 150 minutes per week. When students have no synchronous meetings, rather than adding complications to the project, it multiplies them.

Results from the Diverse Learners Class

The qualitative data from the service learning project gathered for the study was taken from the third and final reflection form. The reflection form consisted of two questions. Only the second question was used to collect the data. The major themes, indicated in italics, that emerged from participants' responses to the second question included a) connect course content to real-life experiences – recognizing diversity; b) enhance knowledge to help meet the needs of ALL students – more aware of different students' needs; c) hold high expectations for students with diverse backgrounds – same expectations; and d) be comfortable with students from diverse backgrounds – treat fairly.

A quote from one student in a virtual section of the course sums up the course's service-learning experience. “The connection to real-life is between the assignment and people around us. This activity made me think outside the realm of just scholastic achievement and more along the lines of making the connection

between what I am learning to what I do every day while interacting inside and outside of the school. Drawing them [service learning and real-life] together will help sustain what I have learned” (Anonymous, 2013).

Conclusion and Future Implications

The survey’s results indicated service-learning experiences are lacking in high school and college. With this in mind, college students will have to be educated and acculturated to the concept and benefits of service-learning before they may become comfortable with the idea. The more students in the online environment come to know about service learning, the easier future attempts at implementation may become. It is also important to note that online students are often non-traditional students, and as such they have not had recent in-person pedagogical experiences. Instructors should understand that some of their online students may have never experienced service learning as students and thus need exhaustive explanation and introduction to the method.

As virtual service-learning becomes more widespread, one helpful element to consider is the possible benefits to students. When students, who had been part of a service-learning project before, were asked what benefits they derived from their previous participation, three very different benefits emerged as the most significant among respondents. In both pre- and post-test iterations, students, indicated that they most appreciated the diversity, self-esteem, and discipline-specific knowledge benefits from their service-learning experiences. Close to the three leading responses were a trio of other salient ones: an increased likelihood to volunteer after graduation, improved career connections, and a boost to their feelings of personal empowerment. These responses suggest that a wide range of benefits emerges from service-learning and that there is no one particular pedagogy instructors should use to embed virtual service-learning into their curricula. Many of the benefits are intrinsic and thus not particularly helpful in explaining and selling a service-learning project to students who are new to and unfamiliar with service learning, especially over the Internet.

The survey results indicated that diversity appreciation is one of the most common benefits students derive from service learning. That finding was reinforced by the participants’ reflections in the Diverse Learners experiment group. Altogether, this suggests that service learning can be a vehicle for greater appreciation of diversity.

The lack of high school opportunities for service-learning also reinforces the need to provide opportunities at the college level. Most students had no service-learning experience as high school students, which means they come to

college still needing to learn the intent, vocabulary, and folkways of service learning. The learning process for students regardless of class deployment is that much tougher and makes it exponentially more difficult to introduce virtual service-learning into the college curriculum.

Qualitative results suggest that multiple discussion and communication venues must be available to students. Lacking face-to-face interaction is a serious difference between in-person and virtual learning, contributing to the general absence of community and peer mentorship. By requiring regular interaction on a variety of levels but most importantly occasional synchronous communication, instructors can contribute to community building among students which appears to be a prerequisite to successful virtual service-learning projects. Another implication in designing virtual service learning is to provide clarity in roles and descriptions. By developing some set roles with responsibilities already established before the beginning of the semester, instructors may remove one important piece of democratic decision-making from the class culture, but will provide a compensatory level of clarity and expectation for the students. Instructors and students would also benefit by requiring reflection at multiple points. Adopters of virtual service learning may want to require multiple reflection events throughout the semester to provide input and the opportunity to make changes to expectations, roles, and duties as the class progresses.

Relative to the review of the literature, the study's results validated Buzinski et al. (2013) second and third recommendations. The second recommendation states that active learning pedagogies resonate with the language faculty members use in their disciplines. While collaborating on many aspects of the study, we created service-learning projects independent of each other for our specified courses. The language used was important for the participants' understanding of the service-learning project. The independent nature of these projects provides one explanation for the qualitative differences found in the study's results. As stated in the Introduction, this study was supported by the Welch Charitable Fund. This funding made it possible for our selection as Provost's Service-learning Faculty Fellows (Office of the Provost, 2012). The third recommendation by Buzinski and his colleagues is the adoption of active learning pedagogies within and across disciplines. Not only did we receive institutional support, but our respective academic departments also provided time for our collaboration and to present the study's findings.

Research related to virtual service-learning is almost non-existent despite the significant advance of online learning over the last decade. Thus, virtual service-learning is a field ripe with opportunities to integrate service-learning as

instructors strive to provide as much of the benefits of the in-person learning environment to virtual students.

The implementation of both course strategies showed that virtual service learning is indeed possible. As the method is in its nascent stages, a significant amount of development is still necessary. However, even though early implementation will be difficult, results from this study strongly indicate that virtual service learning helps online students take authentic learning experiences away from their courses and that the practice should continue.

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