© Journal of Higher Education Outreach and Engagement, Volume 26, Number 1, p. 1, (2022)
 eISSN 2164-8212

Service-Learning Outcomes in Florida Higher Education: An Analysis of Predictors

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Abstract

This study sought to examine how service-learning and student volunteer opportunities shape educational experiences for students by surveying 437 students currently enrolled in service-learning courses from nine participating Florida Campus Compact institutions. The researchers found several predictors that impacted student perceptions of their service-learning experiences, including gender identity, academic discipline, course model, and type of organizational partner. This article presents the current state of service-learning in higher education and presses with an increased urgency for institutions to adopt or expand service-learning programs. The results of this study will better inform service-learning program design as well as future service-learning research.

Keywords: academic discipline, Campus Compact, course model, service-learning, organizational partners

Service-learning has been defined as an experiential learning opportunity that engages students in activities that address community needs through intentionally structured and reflective activities designed to promote student learning and development (Jacoby 1996; Jakubowski, 2003). Kronick (2007) defined service-learning as "the process of integrating active assistance in the community into the learning that is occurring in the classroom" (p. 300). Prior research has indicated that academic service-learning enables students to apply theory to practice, understand issues facing the community, enhance personal development (Darby et al., 2013; Eyler & Giles, 1999), and improve academic performance, leadership development, and self-efficacy (Astin, Sax, & Avalos, 1999).

Benefits of Service-Learning

Service-learning participants receive benefits inside and outside the classroom, including increased social integration and feelings of belonging on campus, increased satisfaction with their collegiate experience, improved class attendance, and improved academic skills such as writing, time management, exam performance, and critical thinking (Fredericksen, 2000; Gallini & Moely, 2003; Madsen & Turnbull, 2006; Rosing et al., 2010). Engagement in academic service-learning has been linked to greater complexities of understanding social topics being learned in the classroom and in the communities being served (Bringle & Hatcher, 2009; Eyler & Giles, 1999). Additional benefits, including increased academic motivation, problem analysis, and cognitive development, have also been identified (Batchelder & Root, 1994; Eyler & Giles, 1999; Osborne et al., 1998). Students taking service-learning courses have also demonstrated gains in academic self-efficacy, confidence when interacting with faculty members outside the classroom, and willingness to seek help from campus administrators (Astin et al., 2000; Astin & Sax, 1998; Kuh, 2008; Yeh, 2010). These benefits distribute across unique student populations, including honors students (Stewart, 2008), low-income and first-generation students (McKay & Estrella, 2008; Yeh, 2010), and first-year students (Stavrianopoulos, 2008).

Institutional Benefits

Institutions facilitating service-learning programming accrue benefits, such as increased student retention and higher persistence and graduation rates (Bringle et al., 2010; Kuh, 2008; Lockeman & Pelco, 2013). These benefits have been attributed to heightened feelings of fit with, and commitment to, the campus and stronger relationships with faculty and peer groups (Bringle et al., 2010; Kuh, 2008). Bringle et al. (2010) determined that students who participate in service-learning coursework in their first year are more likely to be retained into their second year and ultimately graduate from their institution. First-generation and low-income students report greater institutional commitment and motivation to graduate after participating in service-learning coursework (McKay & Estrella, 2008; Yeh, 2010). Pascarella and Terenzini (2005) identified a within-college effect demonstrating the importance of service-learning as a tool for students to make friends from diverse backgrounds, attend diversity-themed workshops, and take diversity-centered courses, all while participating in civic involvement activities. Many studies note that female students are more likely to engage in service-learning activities, whether the activity occurs domestically or internationally, whether it is voluntary or an academic course requirement. Female students also tend to have significantly higher levels of both intrinsic and extrinsic motivation for college (Brouse et al., 2010; Cox et al., 2014; Dienhart et al., 2016; Kiely, 2005; Miller & Gonzalez, 2010).

Service-learning has different effects based on institution type. In a study on the institutionalization of service-learning as a best practice of community engagement in higher education, Plante (2015) investigated three institutions by type—a small private liberal arts college, a small private teaching university, and a large research university, all within the same geographical area. Although each institution approached community engagement in its own unique way, all three institutions earned the Carnegie Community Engagement Classification in 2008 and reclassification in 2015.

"Besides enrolling for classes, getting involved is the single most important thing one can do as a student to not only succeed in college, but to get that perfect first job" (Plante et al., 2014, p. 89). Community colleges represent one of the largest sectors of American higher education, and they offer an opportunity for yielding major impact on the implementation of service-learning around the country. Community colleges have been at the head of the "community-building" movement for several decades, and many of their mission statements call for them to meet community needs and provide services to local organizations and surrounding communities.

> They are, after all, of, by, and for the communities in which they dwell. Today they are being recognized in the service learning field for combining what they do best—teaching, serving, and modeling civic responsibility. More than any other segment of American higher education, community colleges play a unique role in their own communities. (Barnett, 1996, p. 7)

In a study that investigated students' worldviews during an international service-learning experience, students gained knowledge and open-mindedness in the areas of community and civic engagement (Murray et al., 2015).

In Florida, service-learning has become an established pedagogy within postsecondary education. The Florida Campus Compact (FLCC) consists of over 50 college and university presidents committed to engaging students in active citizenship via participation in public and community service (FLCC, 2019, Welcome). Other key aspects of the organization's mission include inspiring "leadership, philanthropy, conscientious citizenship, critical thinking and civil discourse in the next generation" and working to develop a more knowledgeable workforce (FLCC, 2019, Goals). Using national data collected via an annual membership survey, the national organization reported that 95% of partner institutions offer service-learning coursework to their students, with an average of 66 courses offered per campus in 2012. The report also suggested that 62% of its 566 member institutions nationwide require service-learning as part of the core curriculum of at least one major, representing an 11% increase since 2010 (Campus Compact, 2013). In a recent study that featured service-learning across Campus Compact institutions, "an overwhelming majority of student participants in this study agreed or strongly agreed with the statements connecting their service-

learning experience as it relates to career employability and community identity" (Plante et al., 2019, p. 110).

Service-learning impacts should be designed at three critical levels—students, higher education institution, and the larger community (Chupp & Joseph, 2010). The case for service-learning in higher education remains compelling at each of these three levels. Indeed, the demonstrated benefits of service-learning programs for students, institutions, and communities argue for expanding and improving service-learning opportunities.

The Study

The case for service-learning is clear and urgent, as demonstrated in the sections above, but there are many models and frameworks for service-learning with variable outcomes depending on unique characteristics of student population, curriculum design, and institutional type. What does the literature offer Florida instructors and program directors regarding these specific factors? To answer this, we researched students attending Campus Compact colleges and universities within the Sunshine State. The nation's only campus-based civic engagement association in higher education, Campus Compact promotes community and public service that forges partnerships and provides training and resources for faculty seeking to incorporate service-learning into their curriculum (Campus Compact, n.d.).

Campus Compact has conducted various studies on the impact of service-learning in higher education institutions; however, there has been no statewide study on the implications of service-learning in Campus Compact institutions of higher education. To address this gap in the research, the present study aims to assess the effects of service-learning participation on students pursuing postsecondary degrees within the state of Florida. This study seeks to identify the ways in which colleges and universities implement service-learning coursework at their institutions. Specifically, we examined how service-learning and student volunteer opportunities are shaping educational experiences for students and impacting the communities around them. Survey questions were from a previous study, "Perceptions of Service-Learning in the Sunshine State" (Plante et al., 2019), which had a different focus and different outcomes.

Methods

Participants and Procedures

Students from nine colleges and universities participating in the FLCC initiative served as participants in this study. College and university partners were selected from and recruited at a Florida Campus Compact training. Survey links were sent to faculty of record for service-learning courses for distribution to students. Of the approximately 1,181 students enrolled in 49 classes taught by 23 instructors who were invited to participate, 437 students completed the survey, yielding a 35% response rate. Instructors had discretion as to whether to incentivize their service-learning class to complete the online survey. Students were given 6 weeks to complete the survey and received two follow-up communications throughout the study's duration.

A total of 437 participants responded to the survey, with 22.7% male respondents and 71.2% female respondents with 6.1% of participants not answering. There were 285 students aged 18–21, 70 students aged 22–25, 22 students aged 26–29, 18 students aged 30–39, 20 students aged 40–49, two students aged 50–59, and 20 students who did not respond to the question. Further, 40.5% of the sample identified as Hispanic, 29.7% as White/Caucasian, non-Hispanic, 23.7% as Black, non-Hispanic, 4.1% as multiracial, and 1.9% as Asian/Pacific Islander (percentages total less than 100 due to rounding). Nearly half the student participants (46%) indicated that they had taken one service-learning course; for 18%, it was their second service-learning course; for 16%, their third; for 9%, their fourth; for 5%, their fifth; and 5% indicated that this was at least their sixth service-learning course.

Measures

The predictor questions used in the survey requested information such as demographics, majors, course model used, type of service-learning partner, and type of educational institution.

The outcome variables were measured using instruments developed for this study. The first scale measured perceptions of career enhancement resulting from participation in a service-learning course using six items with a 6-point agreement Likert response scale. A sample item is "As a result of en-

gaging in service-learning, I have discovered or clarified my career goals." Cronbach's alpha for this scale was .88 in this study. The next scale measured community engagement resulting from participation in a service-learning course using six items with a 6-point agreement Likert response scale. A sample item is "Participation in service-learning increased my confidence in my ability to bring about change in my community." Cronbach's alpha for this scale was .88 in this study. The third scale measured perceptions of learning enhancement resulting from participation in service-learning using seven items with a 6-point agreement response scale. A sample item is "Service-learning helped me to understand how what I am learning in school applied to the real world." Cronbach's alpha for this scale was .92 in this study. All tests of research questions were performed using linear regression in IBM SPSS 23.

Results and Discussion

Scale Development

Four scales were developed to measure student outcomes of service-learning courses. Specifically, these scales measured career enhancement, connection to community (community engagement), and learning enhancement, in addition to key demographic measures. Following the recommendations of Hinkin (1998), interitem correlations were run, and those items that failed to correlate at least .40 with other items were dropped. Additionally, all remaining items were endorsed by at least 5% of the sample in order to ensure adequate variance. Each instrument was analyzed through a maximum likelihood confirmatory factor analysis in Amos (Version 7.0) (Version 23; Arbuckle, 2006). Model fit was established through the chi-square statistic (χ^2), confirmatory fit index (CFI), non-normed fit index (NNFI), and root mean square error of approximation (RMSEA). It should be noted that although the chi square statistic was applied in this analysis, this measure is heavily influenced by sample size, and thus the CFI, NNFI, and RMSEA are more accurate estimates of fit for this sample.

The results of the confirmatory factor analysis for the single-factor career enhancement scale demonstrated acceptable fit, χ^2 (9) = 91.806, $p < .001$, RMSEA = .14, CFI = .93, NNFI = .84, and factor loadings (Table 1). Further, the Cronbach's alpha for this scale indicated an acceptable level of reliability at .88.

The single-factor community connection scale also demonstrated acceptable fit, $\chi^2(9) = 84.379$, $p < .001$, RMSEA = .14, CFI = .94, NNFI = .87, and factor loadings (Table 2), as well as a Cronbach's alpha of .88.

The single-factor learning enhancement scale additionally demonstrated acceptable fit, χ^2 (14) = 122.190, $p < .001$, RMSEA = .13, CFI = .94, NNFI = .89, and factor loadings (Table 3) as well as a Cronbach's alpha of .92.

Predictors of Service-Learning Outcomes

To establish the predictors of service-learning outcomes, linear regression analyses were conducted on the variables in IBM SPSS 23.

Demographic Predictors

We first examined the impact of demographic characteristics on service-learning outcomes. Results demonstrated that gender was significantly associated with outcomes, with females perceiving higher levels of career enhancement ($M = 4.86$; $F(1,397) = 4.042$, $p < .05$), community engagement ($M = 4.89$; $F(1,395) = 5.786$, $p < .05$), and learning enhancement ($M = 4.86$; $F(1,395) = 5.786$, $p < .05$) than males ($M = 4.62$, 4.60, and 4.62, respectively). Additionally, educational standing was significantly associated with outcomes, with those earlier in their educational careers perceiving greater levels of learning enhancement ($F(1,399) = 4.420$, $p < .05$) than those later in their educational careers. Specifically, first-year students reported a mean of 5.01, sophomores a mean of 4.72, juniors a mean of 4.52, seniors a mean of 4.87, and graduate students a mean of 4.17. Age, race, citizenship status, being a first-generation student, being a part-time versus a full-time student, and whether or not the student worked in addition to taking classes were not significant predictors of service-learning outcomes. The following tables show the relationship of demographic predictors to respondents' perception of career enhancement (Table 4), community engagement (Table 5), and learning enhancement (Table 6).

Academic Discipline Predictors

In examining the effects of the disciplines in which students majored, results demonstrated that students majoring in education

Table 1. Career Enhancement Scale Items and Factor Loadings

Item	Factor Loading
Overall, I feel that my service-learning experience added value to my degree.	.73
I believe my service-learning activities will be relevant to my future career.	.69
I expect to find a better career when I graduate.	.64
I have established contacts for future jobs, scholarships, or school references.	.76
I have discovered or clarified my career goals.	.79
I have gained real-world professional experience.	.83

Note. N = 421.

Table 2. Community Connection Scale Items and Factor Loadings

Item	Factor Loading
I understand the complexities of a social or political problem in my community better than I did before my service-learning course.	.77
Participation in service-learning increased my confidence in my ability to bring about change in my community.	.82
I will be more likely to volunteer my time in the community.	.75
I have benefitted from interaction from people from different ethnic/social/political groups that are different from mine.	.79
I established strong new connections to my community as a result of my service-learning experience.	.76
I am more likely to remain a resident of Florida and/or the community where I attended college because of my service-learning experience.	.63

Note. N = 421.

Table 3. Learning Enhancement Scale Items and Factor Loadings

Item	Factor Loading
Overall, I learned more in my service-learning course than I believe I would have in a comparable course without service-learning.	.79
Service-learning helped me to understand how what I am learning in school applies to the real world.	.80
Participation in service-learning made me want to learn more about the subject I was studying.	.79
I understand my own values and ethics better than I did before completing my service-learning course.	.76
I have improved my problem-solving skills.	.71
I understood the course material better than I would have in a traditional class as a result of my service-learning experience.	.81
Service-learning helped me develop a greater excitement/enthusiasm about learning.	.84

Note. N = 418.

Table 4. Demographic Predictors of Career Enhancement Outcome in Service-Learning

Demographic Predictors	*N*	B	SE	β	*t*	*p*	R^2
Gender identity	399	.243	.121	.100	2.011	.045	.010
Age	408	.008	.046	.009	.178	.859	.000
Race	408	.021	.041	.025	.505	.614	.001
U.S. citizenship	408	.046	.169	.014	.274	.785	.000
First-generation student	408	.170	.108	.078	1.566	.118	.006
Enrollment status	408	.119	.138	.043	.866	.387	.002
Educational standing	408	-.056	.046	-.061	-1.220	.223	.004
Work status	408	.006	.032	.010	.194	.847	.000

Table 5. Demographic Predictors of Community Engagement Outcome in Service-Learning

Demographic Predictors	*N*	B	SE	β	*t*	*p*	R^2
Gender identity	397	.283	.118	.120	2.405	.017	.014
Age	406	-.023	.045	-.025	-.509	.611	.001
Race	406	-.006	.042	-.007	-.149	.882	.000
U.S. citizenship	406	-.190	.165	-.057	-1.155	.249	.003
First-generation student	406	.087	.107	.040	.813	.417	.002
Enrollment status	406	.194	.136	.071	1.427	.154	.005
Educational standing	402	-.074	.045	-.083	-1.662	.097	.007
Work status	406	-.021	.031	-.034	-.680	.497	.001

Table 6. Demographic Predictors of Learning Enhancement Outcome in Service-Learning

Demographic Predictors	*N*	B	SE	β	*t*	*p*	R^2
Gender identity	396	.240	.121	.099	1.978	.049	.010
Age	405	-.011	.046	-.012	-.236	.814	.000
Race	405	.032	.042	.037	.749	.454	.001
U.S. citizenship	405	-.133	.172	-.039	-.775	.439	.001
First-generation student	405	.186	.109	.084	1.701	.090	.007
Enrollment status	405	.162	.137	.059	1.180	.239	.003
Educational standing	401	-.097	.046	-.105	-2.102	.036	.011
Work status	405	-.003	.032	-.004	-.089	.929	.000

perceived the highest levels of career enhancement (M = 5.23; $F(1,419)$ = 4.428, p < .05) and learning enhancement (M = 5.27; $F(1,416)$ = 5.603, p < .05).

Conversely, students majoring in business demonstrated a negative relationship to career enhancement (M = 4.32; $F(1,418)$ = 8.593, p < .01), community engagement (M = 4.87; $F(1,416)$ = 8.470, p < .01), and learning enhancement (M = 4.41; $F(1,415)$ = 5.094, p < .05). Additionally, students majoring in computer science also demonstrated a negative relationship to career enhancement (M = 3.62; $F(1,419)$ = 9.313, p < .01), community engagement (M = 3.67; $F(1,417)$ = 9.362, p < .01), and learning enhancement (M = 3.69; $F(1,416)$ = 7.977, p < .01).

Majors in the arts, health sciences, humanities, life sciences, physical sciences, and social sciences did not demonstrate significant relationships with service-learning outcomes. The following tables show the relationship of academic discipline predictors to respondents' perception of career enhancement (Table 7), community engagement (Table 8), and learning enhancement (Table 9).

Course Model Predictors

Regarding the effectiveness of different course models to influence service-learning outcomes, the "fourth-credit option" model showed significant positive relationships to career enhancement (M = 5.37; $F(1,418)$ = 6.147, p < .05), community engagement (M = 5.23; $F(1,416)$ = 3.773, p < .10), and learning enhancement (M = 5.23; $F(1,415)$ = 4.032, p < .05). Having service-learning make up the majority of the course grade was significantly positively related to career enhancement (M = 4.91; $F(1,312)$ = 5.365, p < .05), community engagement (M = 4.93; $F(1,312)$ = 5.034, p < .05), and learning enhancement (M = 4.90; $F(1,311)$ = 3.999, p < .05).

Having service-learning as the focus of the course was also significantly positively related to career enhancement (M = 5.07; $F(1,418)$ = 3.935, p < .05). Having service-learning as a transparent requirement, requiring service-learning, making service-learning a major project or independent study and having service-learning as a partial or small part of the course were not significant predictors of service-learning outcomes. The following tables show the relationship of course model predictors to respondents' perception of career enhancement (Table 10), community engagement (Table 11), and learning enhancement (Table 12).

Organizational Partner Predictors

Regarding the type of community partner that students worked with in their service-learning project, large national nonprofits significantly positively predicted career enhancement perceptions (M = 5.03; $F(1,419)$ = 4.888, p < .05), whereas local nonprofits

Table 7. Discipline Predictors of Career Enhancement Outcome in Service-Learning

Discipline Predictors	B	SE	β	*t*	*p*	R^2
Arts	.193	.189	.050	1.018	.309	.002
Business	-.523	.178	-.142	-2.931	.004	.020
Computer science	-1.203	.394	-.147	-3.052	.002	.022
Education	.451	.215	.102	2.104	.036	.010
Engineering	.136	.275	.024	.495	.621	.001
Health sciences	.038	.110	.017	.341	.733	.000
Humanities	-.119	.266	-.022	-.447	.655	.000
Life sciences	.039	.187	.010	.210	.833	.000
Physical sciences	-.131	.259	-.025	-.506	.613	.001
Social sciences	.139	.130	.052	1.071	.285	.003

Note. N = 421.

Table 8. Discipline Predictors of Community Engagement Outcome in Service-Learning

Discipline Predictors	B	SE	β	*t*	*p*	R^2
Arts	.066	.185	.018	.360	.719	.000
Business	-.506	.174	-.141	-2.910	.004	.020
Computer science	-1.176	.384	-.148	-3.060	.002	.002
Education	.352	.210	.082	1.679	.094	.007
Engineering	.265	.268	.048	.989	.323	.002
Health sciences	.149	.108	.068	1.385	.167	.005
Humanities	-.270	.259	-.051	-1.042	.298	.003
Life sciences	.060	.182	.016	.327	.743	.000
Physical sciences	.011	.252	.002	.044	.965	.000
Social sciences	.068	.128	.026	.534	.593	.001

Note. $N = 419$.

Table 9. Discipline Predictors of Learning Enhancement Outcome in Service-Learning

Discipline Predictors	B	SE	β	*t*	*p*	R^2
Arts	.077	.193	.019	.397	.692	.000
Business	-.416	.185	-.110	-2.257	.025	.012
Computer science	-1.120	.297	-.137	-2.824	.005	.019
Education	.509	.215	.115	2.367	.018	.013
Engineering	.202	.276	.036	.733	.464	.001
Health sciences	-.004	.110	-.002	-.034	.973	.000
Humanities	-.124	.276	-.022	-.447	.655	.000
Life sciences	.035	.188	.009	.188	.851	.000
Physical sciences	-.014	.260	-.003	-.055	.956	.000
Social sciences	.145	.131	.054	1.110	.268	.003

Note. $N = 418$.

significantly predicted learning enhancement perceptions ($M = 4.90$; $F(1,416) = 4.286$, $p < .05$). The following tables show the relationship of organizational partner predictors to respondents' perception of career enhancement (Table 13), community engagement (Table 14), and learning enhancement (Table 15).

Predictors That Impacted Student Perceptions

This study was designed to identify best practices in the development of service-learning courses to ensure maximal effectiveness for students, faculty, and institutions. To that end, we analyzed data from 437 students in nine participating Florida higher education institutions. From the predictors we examined, several patterns emerged regarding students' gender, academic discipline, course model, and organizational partners.

Gender Identity

The existing service-learning literature shows that women are much more likely than their male peers to participate in service-learning, whether domestic or

Table 10. Course Model Predictors of Career Enhancement Outcome in Service-Learning

Course Model Predictors	*N*	B	SE	β	*t*	*p*	R^2
Service-learning requirement is transparent	412	.166	.103	.079	1.612	.108	.006
Service-learning is required	416	-.012	.134	-.005	-.093	.926	.000
Service-learning is majority of course grade	414	.280	.121	.130	2.316	.021	.017
Service-learning is major project	420	-.045	.161	-.014	-.282	.778	.000
Service-learning is independent study	420	.095	.198	.023	.480	.631	.001
Service-learning is focus of course	420	.305	.154	.097	1.984	.048	.009
Service-learning is "fourth credit"	420	.588	.237	.120	2.479	.014	.014
Service-learning is partial focus of course	420	.084	.104	.039	.807	.420	.002
Service-learning is small part of course	419	-.132	.113	-.057	-1.165	.245	.003

Table 11. Course Model Predictors of Community Engagement Outcome in Service-Learning

Course Model Predictors	*N*	B	SE	β	*t*	*p*	R^2
Service-learning requirement is transparent	415	.155	.101	.076	1.539	.125	.006
Service-learning is required	414	.013	.130	.005	.102	.919	.000
Service-learning is majority of course grade	414	.259	.126	.126	2.244	.026	.016
Service-learning is major project	418	-.077	.157	-.024	-.488	.626	.001
Service-learning is independent study	418	.096	.199	.024	.484	.629	.001
Service-learning is focus of course	418	.267	.150	.087	1.780	.076	.008
Service-learning is "fourth credit"	418	.431	.222	.095	1.942	.050	.009
Service-learning is partial focus of course	418	.065	.102	.031	.640	.522	.001
Service-learning is small part of course	417	-.079	.111	-.035	-.711	.478	.001

Table 12. Course Model Predictors of Learning Enhancement Outcome in Service-Learning

Course Model Predictors	*N*	B	SE	β	*t*	*p*	R^2
Service-learning requirement is transparent	414	.137	.104	.065	1.312	.190	.004
Service-learning is required	413	-.015	.134	-.006	-.115	.908	.000
Service-learning is majority of course grade	413	.239	.119	.113	2.000	.046	.013
Service-learning is major project	417	-.023	.163	-.007	-.142	.887	.000
Service-learning is independent study	417	.002	.199	.000	.008	.994	.000
Service-learning is focus of course	417	.236	.155	.075	1.524	.128	.006
Service-learning is "fourth credit"	417	.459	.229	.098	2.008	.045	.010
Service-learning is partial focus of course	417	.094	.105	.044	.890	.374	.002
Service-learning is small part of course	416	-.074	.115	-.033	-.648	.517	.001

Table 13. Partner Predictors of Career Enhancement Outcome in Service-Learning

Partner Predictors	B	SE	β	*t*	*p*	R^2
Large national nonprofit	.282	.127	.107	2.211	.028	.012
Local nonprofit	.120	.102	.057	1.276	.240	.003
Public school (K-12)	-.004	.123	-.002	-.033	.974	.000
Club or other organization on college campus	-.019	.119	-.008	-.161	.872	.000
Office on college campus	-.087	.141	-.030	-.619	.536	.001
Religious or faith-affiliated group	.080	.163	.024	.489	.625	.001
Government agency	.219	.198	.054	1.108	.269	.003
Business	-.041	.245	-.008	-.166	.868	.000
Private school (K-12)	.204	.294	.034	.694	.488	.001

Note. $N = 421$.

Table 14. Partner Predictors of Community Engagement Outcome in Service-Learning

Partner Predictors	B	SE	β	*t*	*p*	R^2
Large national nonprofit	.157	-.124	.062	1.268	.206	.004
Local nonprofit	.181	.099	.089	1.823	.069	.008
Public school (K-12)	-.010	.122	-.002	-.083	.934	.000
Club or other organization on college campus	.038	.116	.016	-.327	.744	.000
Office on college campus	-.015	.138	-.005	-.108	.914	.000
Religious or faith-affiliated group	.070	.161	.024	.436	.663	.000
Government agency	.036	.193	.009	.184	.854	.000
Business	-.163	.245	-.033	-.683	.495	.001
Private school (K-12)	.097	.298	.016	.324	.746	.000

Note. $N = 419$.

Table 15. Partner Predictors of Learning Enhancement Outcome in Service-Learning

Partner Predictors	B	SE	β	*t*	*p*	R^2
Large national nonprofit	.135	.128	.052	1.053	.293	.003
Local nonprofit	.212	.102	.101	2.070	.039	.010
Public school (K-12)	.036	.125	.014	.291	.771	.000
Club or other organization on college campus	-.123	.120	-.050	-1.026	.206	.003
Office on college campus	-.156	.142	-.054	-1.097	.273	.003
Religious or faith-affiliated group	.210	.162	.063	1.294	.196	.004
Government agency	.010	.199	.003	.051	.959	.000
Business	-.038	.247	-.007	-.152	.879	.000
Private school (K-12)	.245	.296	.041	.829	.407	.002

Note. $N = 418$.

international, mandatory or optional (Cox et al., 2014; Dienhart et al., 2016; Kiely, 2005; Miller & Gonzalez, 2010; Murray et al., 2015). The current study furthers these findings by demonstrating that females report the greatest gains in career enhancement, community engagement, and learning enhancement. The current literature suggests that women spend more time engaging in activities such as preparing for class, meeting instructors' standards, rewriting papers, and completing challenging assignments than do their male counterparts (Kinzie et al., 2007). Since men appear to be less engaged in the traditional classroom, it is not surprising that they are less likely to be engaged in academic work beyond the classroom. Further supporting this argument is the evidence that male students are more likely to have an independent learning style and not participate in class discussions, presentations, and team projects (Drew & Work, 1998; Kinzie et al., 2007). These collaborative experiences more closely mirror the tasks needed for service work and may contribute to our understanding of male reluctance to engage in service-learning.

Academic Disciplines

Our research suggests that academic disciplines may influence service-learning outcomes. Although business majors exhibited negative correlations with all three outcomes, education majors showed positive relationships with the outcomes. Other disciplines, including the sciences, humanities, and arts, demonstrated no significant relationship with the outcomes. This correlates with the current literature, with service-learning apparently receiving more emphasis in disciplines that focus on qualitative inquiry, in contrast to quantitative disciplines (Butin, 2006). This finding suggests that service-learning courses may be most effective when applied in education classrooms, and that further research is needed to maximize effectiveness for business, sciences, humanities, and arts classes.

Although the primary purpose of service-learning is not career preparation, it is worth considering that service-learning opportunities in education most closely resemble the work that future teachers will perform, and therefore create connections that lead to employment. If this is the case, it would make sense for education students to have more positive attitudes toward and outcomes from the experience than those in other majors, such as business. Supporting this idea, prior research examining the syllabi of university business courses that incorporate service-learning has found that only 18% of them focus on civic responsibility and community involvement in their course objectives, so that service-learning is out of alignment with the stated goals of the course (Steiner & Watson, 2006). Students likely devalue the experience because of this incongruity.

Course Model

The "fourth-credit" model showed the most gains for students in terms of career enhancement, learning enhancement, and community engagement, followed closely by having the final course grade predicated largely on the service-learning project. Enos and Troppe (1996) described the fourth-credit option as an add-on to a traditional three-credit course whereby students sign a learning contract with the professor to contribute to service-learning components. These components often include engaging in a significant amount of volunteer hours (approximately 40–50 per semester), keeping an active journal, and writing a reflection paper that synthesizes the service to the course criteria. Several colleges and universities are effective at implementing the fourth-credit option because it enables students to become the initiators of the service-learning component; they may introduce other faculty members to the concept and advocate service-learning to their instructor and classmates. Such advocacy can yield a fourth-credit option in subsequent courses or the redesign of a course to integrate service. The fourth-credit option model showed significant positive relationships to community engagement, learning enhancement, and career enhancement.

Organizational Partners

In examining organizational partners as predictors of outcomes, students who were placed in larger national nonprofit organizations had positive outcomes when predicting career enhancement. Students who served at smaller, more local nonprofit organizations, however, demonstrated significantly positive learning enhancement outcomes. This finding aligns with the supposition by Handy and Brudney (2007) that larger nonprofit organizations, such as Goodwill Industries, pair volunteers

with paid personnel to produce their desired output. This arrangement provides a work environment with the opportunity for engaging with staff and the operational side of an agency, which may be the first exposure to such a setting for many students. Conversely, smaller and/or independent nonprofit organizations may use different approaches when engaging their volunteers: not as laborers, but as learners of their organization and its mission—concentrating on outcomes rather than outputs (Handy & Brudney, 2007).

Limitations to This Study

Although the results of this research are promising, they should be interpreted in light of the limitations. In this pilot study, the researchers were interested in casting a broad net to capture how the survey instrument was implemented, as well as the results from the study. This approach may have resulted in respondent fatigue. Additionally, this study was completed through a relationship between FLCC and its partnering institutions, which may be more community engaged than institutions not associated with Campus Compact.

This study presented challenges when collecting data, such as communication and accountability. The structure by which we communicated to the Campus Compact institutions prohibited us from speaking directly to those instructors who were implementing the instrument in their service-learning classes. The researchers spoke only to the administrators, who then reached out to department heads, who then reached out to their faculty members seeking participation. Despite our efforts to be strategic, there was no accountability for which disciplines, classes, or faculty members were associated with the participating students, making it difficult to measure effectiveness within and across the institutions.

Implications for Future Research

On a micro level, focus groups could be conducted in the nine participating FLCC schools to elucidate the data elicited by the "why" questions pertaining to gender identity, academic discipline, course model, and type of organizational partner. The study was confined to higher education institutions connected to FLCC. The goal was to identify those participating in deep, meaningful community engagement activities, specifically service-learning, through the lens of FLCC as a relatable baseline for the study. We recommend performing a similar study with Florida higher education institutions that are not associated with FLCC to compare and contrast the depth and pervasiveness of service-learning in the two groups to analyze the benefit of infrastructure provided by an outside entity like FLCC.

On a macro level, the instrument could be used in comparative analysis studies of other Campus Compact institutions in different states as well as to compare Campus Compact institutions to non–Campus Compact institutions to identify parallels and gaps in community engagement through service-learning at each of the higher education institutions. The study reflected the ways in which colleges and universities implement service-learning coursework at their institutions. Another possibility is comparing the FLCC-affiliated institutions with those who have received the Carnegie Community Engagement Classification to overlay the theories and practices happening at a deeper level.

There is no one definition of service-learning, according to the Carnegie Community Engagement Classification (PLAC, 2015). However, a common element uncovered in this study was active participation with the state's Campus Compact, which supports community engagement endeavors, like service-learning, in higher education. The researchers were able to determine what was "good service-learning" by utilizing a reputable organization, Campus Compact, that connects community engagement to higher education. A future recommendation is to provide an institutional survey and hope that our instrument can be replicated to capture institutional service-learning.

Further, future research on service-learning will benefit from an examination of individual student academic and career goals, which are likely a large driver of perceptions and outcomes of the projects, rather than focusing on project models and hours. Bringing alignment to the values and developmental needs of the students and the components of the service-learning experience will likely result in positive outcomes across the board.

Conclusion

The purpose of the project was to examine how volunteer opportunities and service-

learning are shaping educational experiences for students and impacting their communities around them. Participation from the 437 students at nine Campus Compact institutions in the present study provided a complete and accurate assessment of students' perceptions of the effect of service-learning in terms of career enhancement, connection to community, and learning enhancement as impacted by their gender identity, academic discipline, course model, and type of organizational partner.

Results from the study will be applied to shape service-learning policies around the state and add to existing service-learning literature. Results of the research will inform future studies at other Campus Compact institutions. Student perceptions of service-learning can then be compared to those at other participating Campus Compact institutions by state, by region, and across the nation and the larger public scholarship. Additionally, there is an opportunity for other colleges and universities to replicate this survey in the future to capture the efficacity of institutional service-learning.

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References

Arbuckle, J. L. (2006). *Amos* (Version 7.0) [Computer software]. SPSS.

Astin, A. W. & Sax, L. J. (1998). How Undergraduates are Affected by Service Participation. *Journal of College Student Development, 39*(3): 251–263.

Astin, A.W., Sax, L.J., & Avalos, J. (1999). Long-term effects of volunteerism during the undergraduate years. *Higher Education.* Paper 88.

Astin, A. W., Vogelgesang, L. J., Ikeda, E. K., & Yee, J. A. (2000). *How service-learning affects students.* Higher Education Research Institute, University of California.

Barnett, L. (1996). Service-learning: Why community colleges? *Higher Education*, Article 6. http://digitalcommons.unomaha.edu/slcehighered/6 (Reprinted from "Service learning: Why community colleges?" 1996, *New Directions for Community Colleges, 1996*[93]: 7–25. https://doi.org/10.1002/cc.36819969303)

Batchelder, T. H., & Root, S. (1994). Effects of an undergraduate program to integrate academic learning and service: Cognitive, prosocial cognitive, and identity outcomes. *Journal of Adolescence, 17*(4), 341–355. https://doi.org/10.1006/jado.1994.1031

Bringle, R. G. & Hatcher, J. A. (2009). Innovative practices in service-learning and curricular engagement. In L.R. Sandmann, C.H. Thornton, & A.J. Jaeger (Eds.), *Institutionalizing community engagement in higher education: The first wave of Carnegie classified institutions. New Directions for higher education* (pp. 37-46). San Francisco: JosseyBass/Wiley Publishing.

Bringle, R. G., Hatcher, J. A., & Muthiah, R. N. (2010). The role of service-learning on the retention of first-year students to second year. *Michigan Journal of Community Service-Learning, 16*(2), 38–49. http://hdl.handle.net/2027/spo.3239521.0016.203

Brouse, C., Basch, C., LeBlanc, M., Mcknight, K., & Lei, T. (2010). College students' academic motivation: Differences by gender, class, and source of payment. *The College Quarterly, 13*(1), 296–304. http://collegequarterly.ca/2010-vol13-num01-winter/brouse-basch-leblanc-mcknight-lei.html

Butin, D. W. (2006). The limits of service-learning in higher education. *The Review of Higher Education, 29*(4), 473–498.

Campus Compact. (n.d.). *Who we are*. https://compact.org/who-we-are/

Campus Compact. (2013). *Creating a culture of assessment: 2012 Campus Compact annual member survey.*

Chupp, M. G., & Joseph, M. L. (2010). Getting the most out of service-learning: Maximizing student, university, and community impact. *Journal of Community Practice, 18*(2–3), 190–212. https://doi.org/10.1080/10705422.2010.487045

Cox, T., Murray, L., & Plante, J. D. (2014). Undergraduate student diversity paradigm expansion: The role of international service-learning. *International Forum of Teaching and Studies, 10*(1), 3–13. http://www.americanscholarspress.us/journals/IFST/pdf/IFOTS-1-2014/v10n1-art1.pdf

Darby, A., Longmire-Avital, B., Chenault, J., & Haglund, M. (2013). Students' motivation in academic service-learning over the course of the semester. *College Student Journal, 47*(1), 185–191. https://www.ingentaconnect.com/contentone/prin/csj/2013/00000047/00000001/art00019

Dienhart, C., Maruyama, G., Snyder, M., Furco, A., McKay, M. S., Hirt, L., & Huesman, R., Jr. (2016). The impacts of mandatory service on students in service-learning classes. *The Journal of Social Psychology, 156*(3), 305–309. https://doi.org/10.1080/00224545.2015.1111856

Drew, T. L., & Work, G. G. (1998). Gender-based differences in perception of experiences in higher education: Gaining a broader perspective. *Journal of Higher Education, 69*(5), 542–555. https://doi.org/10.1080/00221546.1998.11775150

Enos, S., & Troppe, M. (1996). Curricular models for service learning. *Metropolitan Universities: An International Forum, 7*(1), 71–84. https://journals.iupui.edu/index.php/muj/article/view/19559/19268

Eyler, J. S., & Giles, D. E. (1999). *Where's the learning in service learning?* Jossey-Bass.

Florida Campus Compact. (2019). *Welcome to Florida Campus Compact.* https://floridacompact.org

Fredericksen, P. J. (2000). Does service-learning make a difference in student performance? *Journal of Experiential Education, 23*(2), 64–74. https://doi.org/10.1177/105382590002300204

Gallini, S. M., & Moely, B. E. (2003). Service-learning and engagement, academic challenge and retention. *Michigan Journal of Community Service-Learning, 20*(1), 1–14. http://hdl.handle.net/2027/spo.3239521.0010.101

Handy, F., & Brudney, J. L. (2007). *When to use volunteer labor forces? An organizational analysis for nonprofit management*. http://repository.upenn.edu/spp_papers/91

Hinkin, T. R. (1998). A brief tutorial on the development of measures for use in survey questionnaires. *Organizational Research Methods, 1*(1), 104–121. https://doi.org/10.1177/109442819800100106

Jacoby, B. (1996). Service-learning in today's higher education. In B. Jacoby (Ed.), *Service-learning in higher education: Concepts and practices* (pp. 3–25). Jossey-Bass.

Jakubowski, L. M. (2003). Beyond book learning: Cultivating the pedagogy of experience through field trips. *The Journal of Experiential Education, 26*(1), 24–33. https://doi.org/10.1177/105382590302600105

Kiely, R. (2005). A transformative learning model for service-learning: A longitudinal case study. *Michigan Journal of Community Service-Learning, 12*(1), 5–22. http://hdl.handle.net/2027/spo.3239521.0012.101

Kinzie, J., Gonyea, R., Kuh, G. D., Umbach, P., Blaich, C., & Kormaz, A. (2007). *The relationship between gender and student engagement in college* [Paper presentation]. 32nd Annual Conference of the Association for the Study of Higher Education, Louisville, KY.

Kronick, R. (2007). Service-learning and the university student. *College Student Journal, 41*(2), 296–304.

Kuh, G. D. (2008). High-Impact Educational Practices: What They Are, Who Has Access to Them, and Why They Matter. Report from the Association of American Colleges and Universities.

Lockeman, K. S., & Pelco, L. E. (2013). The relationship between service-learning and degree completion. *Michigan Journal of Community Service-Learning, 20*(1), 18–30. http://hdl.handle.net/2027/spo.3239521.0020.102

Madsen, S. R., & Turnbull, O. (2006). Academic service-learning experiences of compensation and benefit course students. *Journal of Management Education, 30*(5), 724–742. https://doi.org/10.1177/1052562905283710

McKay, V. C., & Estrella, J. (2008). First-generation student success: The role of faculty interaction in service-learning courses. *Communication Education, 57*(3), 356–372. https://doi.org/10.1080/03634520801966123

Miller, K. K., & Gonzalez, A. M. (2010). Domestic and international service-learning experiences: A comparative study of pre-service teacher outcomes. *Issues in Educational Research, 20*(1), 29–38. http://www.iier.org.au/iier20/knutson-miller.html

Murray, L. I., Plante, J. D., Cox, T. D., & Owens, T. (2015). Service-learning: Creating opportunities to expand students' worldviews. *Journal of Learning in Higher Education, 11*(2), 51–58.

Osborne, R. E., Hammerich, S., & Hensley, C. (1998). Student effects of service-learning: Tracking change across a semester. *Michigan Journal of Community Service-Learning, 5*, 5–13. http://hdl.handle.net/2027/spo.3239521.0005.101

Pascarella, E. T., & Terenzini, P. T. (2005). *How college affects students: Vol. 2. A third decade of research.* Jossey-Bass.

PLAC. (2015). *The 2015 Carnegie Community Engagement Classification: Re-classification documentation framework.* Carnegie Foundation for the Advancement of Teaching.

Plante, J. D. (2015). *Institutionalizing service-learning as a best practice of community engagement in higher education: Intra- and inter-institutional comparisons of the Carnegie Community Engagement Elective Classification framework* [Doctoral dissertation, University of Central Florida]. ResearchGate. https://doi.org/10.13140/RG.2.2.31170.99529

Plante, J. D., Currie, T. J., & Olson, S. L. (2014). Volunteer UCF: Igknighting volunteerism. In T. A. Bryer (Ed.), *National service and volunteerism: Achieving impact in our communities* (pp. 89–101). Lexington Books.

Plante, J. D., Murray, L. I., Bowdon, M. A., & Wolcott, A. M. (2019). Perceptions of service learning in the Sunshine State. In V. C. X. Wang (Ed.), *Handbook of research on transdisciplinary knowledge generation* (pp. 102–114). IGI Global.

Rosing, H., Reed, D., Ferrari, J. R., & Bothne, N. J. (2010). Understanding student complaints in the service-learning pedagogy. *American Journal of Community Psychology, 46*(3–4), 472–481. https://doi.org/10.1007/S10464-010-9338-5

Stavrianopoulos, K. (2008). Service-learning within the freshman year experience. *College Student Journal, 42*(2), 703–712.

Steiner, S. D., & Watson, M. A. (2006). The service-learning component in business education: The values linkage void. *Academy of Management Learning & Education, 5*(4), 422–434. https://doi.org/10.5465/amle.2006.23473203

Stewart, T. (2008). Community service self-efficacy and first-year undergraduate honors service learning. In M. A. Bowdon, S. H. Billig, & B. A. Holland (Eds.), *Scholarship for sustaining service-learning and civic engagement: Research and the K–20 continuum* (pp. 29–53). Information Age Publishing.

Yeh, T. L. (2010). Service-learning and persistence of low-income, first-generation college students: An exploratory study. *Michigan Journal of Community Service-Learning, 16*(2), 50–65. http://hdl.handle.net/2027/spo.3239521.0016.204