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All Service-Learning Experiences Are NOT Created Equal! Effects of Service-Learning Quality on Self-Efficacy and Engagement

Joseph A. Allen, Kaitlin Fosler, and Kelly Prange

Abstract

Service-learning courses offer a unique experience to students by reinforcing typical school curriculum with experiences outside the classroom, where the emphasis is on learning by doing accompanied with reflection (Conrad & Hedin, 1981). Studies show that the quality of the service-learning experience has the potential to impact student outcomes; however, few have looked at the relationship of quality with engagement and self-efficacy (Holland et al., 2009). Thus, this study focused on the effects of the quality of service-learning experience on student engagement through leadership self-efficacy and community service self-efficacy. A survey of 105 students showed a significant mediation model of quality of service-learning on affective student engagement through leadership self-efficacy and community service self-efficacy. Significant direct effects were found between quality of service-learning and leadership self-efficacy, community service self-efficacy, and student engagement. These findings on quality of service-learning courses have implications for students, educators, and universities.

Keywords: service-learning, self-efficacy, quality, student engagement

Service-learning, or a teaching pedagogy that incorporates practical community experience and reflection into in-class learning, has expanded among U.S. higher education institutions over the past 20 years (Bulot & Johnson, 2006; Gray et al., 2000). The service-learning teaching philosophy, in which service-learning is a continuous, active process of experience and reflection, is grounded in experiential learning theory (Whitley, 2014). The active involvement, experience, and reflection aids in greater personal engagement, reflection, and intellectual growth of the student participants (Gray et al., 2000; Kuh, 2008). Furthermore, service-learning addresses important social problems, including student engagement and retention, improved critical thinking, participation in a democratic society, and prioritization of community service (Gray et al., 2000). Gray et al. also noted that service-learning offers a practical boon for students, such as gaining valuable experience and solidifying career goals or paths. Although these outcomes have been well documented, it is important to note that these benefits are not a given. The National Youth Leadership Council has documented service-learning standards for K-12 educational institutions; however, these do not directly apply to the higher education setting (RMC Research Corporation, 2008). George Kuh's (2008) work on high-impact practices demonstrated some key components that make service-learning experiences effective; however, no universal standards for service-learning coursework have been implemented for higher education, as evidenced by the mixed success of some service-learning projects. This study aims to examine service-learning from the

perspective of quality to emphasize and begin filling the gap in literature and practice around best practices and standards for service-learning experiences at the higher education level.

Research on the outcomes of service-learning courses has shown many positive impacts on students' personal, academic, and career outcomes (Astin et al., 2000; Gray et al., 2000; Song et al., 2017; Weiler et al., 1998). A longitudinal study conducted by Astin et al. (2000) found that students who participated in service-learning showed significant positive effects on measures of self-efficacy, leadership, values, academic performance, continued service participation, and choice of service career. Similarly, research has shown that service-learning experiences can have positive impacts on students' level of engagement in their academic, community, and interpersonal contexts (Gallini & Moely, 2003; Kuh et al., 2007). Another study found that students involved in service-learning performed better on reading and language arts tests than students not involved in service-learning; these students also reported greater learning from the course than students in non-service-learning courses (Weiler et al., 1998). Similar results were found when race, first-generation college student status, and income were considered. Service-learning may even be a bridge to success for college students of color, first-generation college students, or students from low-income families, as they were found to have better academic performance and higher levels of persistence when they participated in a service-learning course compared to students who did not (Song et al., 2017).

Much of the research on service-learning has focused on the difference in outcomes between students who have participated in service-learning courses and those who have not. However, previous research suggests that a key antecedent of the service-learning outcomes may be student perceptions of the quality of the service-learning. For example, one study found that students were more engaged in a service-learning course when additional support and motivational teaching strategies, such as providing challenge, curiosity, recognition, autonomy, evaluation, and real-life experience, were used (Lam et al., 2014). These concepts of motivational teaching strategies can map onto areas of high-quality service-learning experiences as well; for example, the motivational teaching strategy of providing challenge maps well to the intellectual stimulation provided by the service-learning experience. These findings suggest that it is the students' perception of the service-learning experience that dictates the positive outcomes rather than just the implementation of a service-learning course.

Whitley (2014) proposed a framework of how to progress the research of service-learning effects on students. Whitley's framework positions the context of service-learning, the service-learning experience, mediating variables, and outcomes as key considerations on service-learning outcomes. Previous research has examined possible context variables such as income and race; other researchers have explored outcome variables such as academic performance, values, and self-efficacy (Astin et al., 2000; Gray et al., 2000; Song et al., 2017; Weiler et al., 1998; Whitley, 2014). Although this research is a remarkable step in the right direction, some aspects of the model have been neglected, including the service-learning experience variables. Service-learning experience measures can range from support, challenge, and interest to intellectual development, knowledge, and skills gained (Whitley, 2014). George Kuh's (2008) seminal work on high-impact practices emphasized the impact that experiences such as service-learning, learning communities, and internships can have on deep learning as well as offering personal and educational gains. Kuh further noted some key aspects that marked these experiences as high impact, including academic challenge, active and collaborative learning, and a supportive learning environment. Other areas of high-quality service-learning are skill development and application, understanding of community issues, motivation, self-confidence, interest in the community, and personal growth (Abe, 2011). Measures of service-learning quality can capture a more holistic view of all the factors that describe the service-learning experience.

The purpose of this study is to investigate how the quality of service-learning courses relates to outcomes measured by previous research. Specifically, by building upon the experiential learning theory (Whitley, 2014), we investigate how the quality of service-learning can impact self-efficacy and engagement in college students. Our hope is

to show that service-learning quality has a positive influence on student engagement through the development of both leadership self-efficacy and community service self-efficacy. We conclude with a discussion of our findings and key implications for leaders in academia who could more overtly leverage the benefits of service-learning courses among their students by adhering to certain quality standards.

Experiential Learning Theory, Quality of Service-Learning, and Student Engagement

Experiential learning theory, a theory founded by David Kolb and based on the experiential works of Dewey, Lewin, and Piaget, emphasizes the importance of experience in the learning process in order to stimulate growth and development. Dewey's theories of cultural naturalism that emphasize the role of social conditions in everyday life, Lewin's advancements in social psychology, and Piaget's applications of genetic epistemology in how cognitive development stems from adapting to the environment all feed into Kolb's definition of experiential learning (Kolb & Kolb, 2012). Kolb (1984) defined experiential learning theory as "the process whereby knowledge is created through the transformation of experience" (p. 41). Experiential learning theory posits a learning cycle of (a) *grasping* experience through abstract conceptualization and concrete experience and then (b) *transforming* experience through active experimentation and reflective observation (Kolb & Kolb, 2012). This cycle, shown in Figure 1, depicts how concrete experiences serve as a basis for reflection, which in turn creates abstract concepts that inform actions, and those actions can be actively experimented with to guide new experiences. Experiential learning theory provides the foundation for service-learning because the learner takes an active role in their learning through experience and reflection to integrate new learning into old concepts (Whitley, 2014).

A core part of a service-learning course is students' active involvement in their learning (Whitley, 2014). When a student participates in a service-learning course, they engage in the experiential learning cycle: They are actively involved in an experience, which they then reflect upon to gain a deeper understanding, which in turn leads to greater action (Abe, 2011). However, student-perceived quality of the service-learning experience can influence engagement in the learning cycle and the potential positive

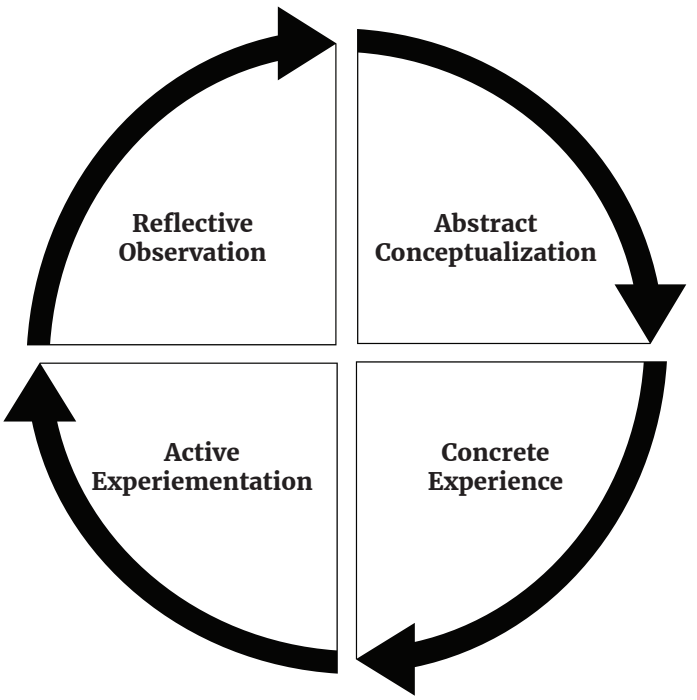

Figure 1. Experiential Learning Cycle

outcomes therein. Quality of service-learning refers to the students' assessment of the personal and professional benefits associated with their service-learning experience (e.g., skill development, intellectual stimulation, application of learning; Abe, 2011). Abe's conceptualization of high-quality service-learning encompasses measures similar to the standards set by the National Youth Leadership Council, including meaningful service, student voice, mutually beneficial collaborations, progress monitoring, reflection, connection to curriculum, and adequate intensity (Fox & LaChenaye, 2016). Student perceptions of quality appear to have a considerable impact on outcomes from service-learning. One study found that when students perceived their service-learning project to be challenging, important, appealing, and beneficial, they had greater commitment to community service (Boehm & Cohen, 2013). Other research has shown that students gained greater life skills, academic skills, civic participation, and professional development when they felt that their course consistently applied course concepts to their service experience (Gray et al., 2000). Further, Gray et al. found that regularly discussing the service experiences in class positively impacted life skills.

One key potential outcome of high-quality service-learning is student engagement (Conrad & Hedin, 1981; Furco & Root, 2010). The more students are involved in their learning, the more they tend to be engaged, or interested and immersed in initiating and maintaining learning behaviors in school. Student engagement is thought to be a mediator between contextual antecedents and student outcomes. Greater student engagement has been observed to lead to academic achievement as well as increased self-esteem and life satisfaction (Lam et al., 2014). The quality of service-learning can serve as the contextual antecedent that facilitates greater student engagement.

Previous research has found that when students participate in a service-learning course, their motivation and interest in learning increase (Conrad & Hedin, 1981). Other studies have observed that student participation in a service-learning course is associated with increased motivation and interest in school (Furco & Root, 2010). Lam et al. (2014) further differentiated this finding into three categories of student engagement: cognitive, affective, and behavioral. Specifically, cognitive engagement is defined as strategies students use during the learning process; affective engagement refers to students' feelings about their school learning; behavioral engagement indicates student effort and persistence in learning. With these findings as a foundation, we chose to utilize a framework examining student engagement operationalized by those same three categories. Furthermore, we chose to look at how the quality of service-learning experience (rather than participation alone) impacts these facets of student engagement. This is an important relationship to research due to the growing literature recognizing engagement as a mediator for many other relationships. Engagement is growing in complexity as literature continues to demonstrate the many facets and interrelations it can encompass (Simonet, 2008). We focus here on three of those facets: cognitive, affective, and behavioral engagement. Based on experiential learning theory, we believe that participating in a high-quality service-learning experience that provides ample opportunity to gain experience, reflect, and grow as a person will stimulate greater change in learning and behavior. The high-quality experiences, reflection, and learning will in turn stimulate greater action by the students to engage in school via cognitive, affective, and behavioral engagement.

Quality of Service-learning With Leadership and Community Service Self-Efficacy

Although we anticipate the quality of service-learning will be related to all three types of student engagement, there may be more proximal student outcomes that intervene between quality service-learning and engagement: specifically, the development of leadership and community service self-efficacy. Many studies have found that service-learning course participation has positive impacts on general and community service self-efficacy (Astin et al., 2000; Conrad & Hedin, 1981; Song et al., 2017). Leadership self-efficacy and community service self-efficacy may also be important outcomes of service-learning courses, but limited studies have been conducted on the subject (Midgett et al., 2016; Reeb et al., 2010).

Before continuing to define both leadership and community service self-efficacy, it is important to distinguish self-efficacy from

similar constructs (Bandura, 1977). Other researchers have conflated self-efficacy with self-esteem and confidence (Hoban & Hoban, 2004). In fact, in this article, we have used all of these terms in our explication of the potential impact of service-learning on students. To clarify, "self-efficacy" refers to a personal judgment of how well or poorly a person is able to cope with a given situation based on their skills and the circumstances they face (Bandura, 2010). In contrast, "self-esteem" is the sense of self-worth, which is clearly different from self-efficacy. Furthermore, according to Bandura (2010), "confidence" is the more colloquial term often used to refer to aspects of self-efficacy. However, "confidence" is a nonspecific term that refers to strength of belief but does not necessarily specify what the certainty is about. With these distinctions in mind, we return to the key ideas of leadership and community service self-efficacy.

Leadership self-efficacy refers to a person's belief in his or her own ability to lead and influence others. Research has consistently shown that self-efficacy impacts performance in an array of domains (Hoyt et al., 2010). One study found that student participation in a service-learning project had a positive impact on the students' leadership efficacy (Midgett et al., 2016). Similarly, Billig (2017) found that students reported that their service experience had a moderate influence on their leadership skills, specifically regarding their confidence in taking on new roles and responsibilities. Some researchers believe that increased self-efficacy, specifically leadership self-efficacy, is an indicator that learning has taken place (Ng et al., 2009). We believe that high-quality service-learning should facilitate greater learning, which will be reflected in increased leadership self-efficacy. See Figure 2 for a reference on the relationships we are hypothesizing.

Community service self-efficacy is described as the person's belief in their ability to impact their community. Research has found that community service self-efficacy is negatively related to narcissism and is a positive influence on engagement (Credo et al., 2016). Another study found that those who participated in a community service activity had higher community service self-efficacy than those who did not (Reeb et al., 2010), which was echoed in students who participated in a service-learning opportunity. We assert that participating in a high-quality service-learning course will positively contribute to students' community service self-efficacy, which could in turn positively influence other outcomes.

Further research has found that having specific self-efficacies can aid in both commitment to and success in an activity or job. A study on social work students found that when students lack experience, they also lack confidence and commitment to working in the field; however, these deficiencies can be mitigated by experiential learning activities (Boehm & Cohen, 2013). Yet another study found that service activities had the greatest impact on ethic of service and leadership skill development (Billig, 2017). Thus, consistent with experiential learning theory, a quality service-learning course can provide a foundation of experience upon which students can build their confidence in their ability to serve their community and serve as a leader in their class, community, and future career.

Mediated Model of Quality of Service-Learning to Engagement Through Self-Efficacy

Given prior studies, it is believed that students' perceptions of the quality of service-learning courses will relate to the students' reports of engagement through increased self-reported student leadership and community service self-efficacy. This argument is consistent with prior qualitative examinations of foster learning that have linked effective service-learning to increased self-efficacy, increased awareness of personal values, greater awareness of the world, and greater engagement in coursework (Astin et al., 2000). Ouweneel et al. (2013) asserted a positive relationship between self-efficacy and engagement; self-efficacy leads to more willingness to apply effort and energy to a task, which in turn increases involvement and absorption (i.e., engagement). Students with greater self-efficacy had greater engagement and performance at both the academic level and the task level. Thus, we propose the following mediated relationship by hypothesis:

> Hypothesis 1: Perceptions of the quality of service-learning course are positively related to cognitive student engagement, affective student engagement, and behavioral student engagement.

Hypothesis 2: Perceptions of the quality of service-learning course are positively related to (a) leadership self-efficacy and (b) community service self-efficacy.

Hypothesis 3: Perceptions of the quality of service-learning course are positively related to cognitive student engagement, affective student engagement, and behavioral student engagement through (a) leadership self-efficacy and (b) community service self-efficacy.

Method

Participants

Participants were current undergraduate students at University of Nebraska Omaha (UNO) who had previously participated in service-learning or community engagement activities as identified by the university. Participants were not provided any compensation for their participation in the research, and IRB approval was obtained prior to collecting data from these participants. We sent the survey link to 1,500 students, and a total of 836 surveys were completed. Only data from the participants who had completed a service-learning course as designated by the university (n = 105) were used in this study.

The age of the participants ranged from 18 to 60 years old (M = 23.22, SD = 6.92). Of the 105 students, 83 (79%) were females and 22 (21%) were males. The number of service-learning experiences the students had participated in ranged from one to 10 (M = 1.61, SD = 1.26). Most of the students (86%) had participated in one or two service-learning experiences. The cumulative GPA of students ranged from 0.98 to 4.0 (M = 3.33, SD = 0.50). The sample consisted of seven (6.6%) freshmen, 28 (26.7%) sophomores, 30 (28.6%) juniors, and 40 (38.1% seniors. There were 67 (63.8%) Caucasian/White students, six (5.7%) African American students, 23 (21.9%) Hispanic students, three (2.9%) Pacific Islander students, and six (5.7%) students who identified their race as "Other." Ninety-three (88.6%) of the students were enrolled full-time, and 12 (11.4%) were enrolled part-time.

Measures

The quality of service-learning measure was adapted from Abe's (2011) measures of successful experiential learning and consisted of nine items with a 7-point Likert response scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The items were adapted so that they did not reference the field of mental health specifically. We were interested in the quality of the service-learning experience, regardless of the course topic or area of study, so we adapted some items to be general to all service-learning topics. Example items included "Service-learning course helped me develop valuable skills" and "Service-learning course was intellectually stimulating." A full list of items can be found in Table 3 in the Appendix.

Leadership Self-Efficacy

The leadership self-efficacy scale was adapted from the leadership efficacy measure (Hoyt et al., 2010). The leadership self-efficacy scale consisted of five items with a 7-point Likert response scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The items were adapted to refer to a "group" as a general term instead of specifically a "work group." Example items included "Overall, I believe that I can lead a group successfully" and "I have confidence in my ability to lead." A high mean score on leadership self-efficacy indicates a student felt they had more ability to lead. A full list of items can be found in Table 4 in the Appendix.

Community Service Self-Efficacy

Students' level of community service self-efficacy was measured using the Civic Efficacy Scale (Ballard et al., 2015). The community service self-efficacy scale consisted of three items with a 7-point Likert response scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Example items included "I can make my community a better place by helping others in need" and "There are things I can do to make the world a better place." A high mean score on community service self-efficacy indicates a student felt they possessed the ability to impact the community in a positive way. A full list of items can be found in Table 5 in the Appendix.

Cognitive Student Engagement

The cognitive student engagement scale was adapted from Lam et al.'s (2014) student engagement in school measure. The original

scale consisted of 12 items; however, only six items were used in this study to shorten the survey and avoid reverse-coded items (Herche & Engelland, 1996). The six items used in this study used a 5-point Likert scale ranging from 1 (*Never*) to 5 (*Always*). Sample items included "When learning new information, I try to put the ideas in my own words" and "I try to understand how the things I learn in school fit together with each other." A high mean score on the cognitive engagement measure represents a dedication to usually or always using the cognitive strategies mentioned when trying to learn and understand class information and material. A full list of items can be found in Table 6 in the Appendix.

Affective Student Engagement

The affective student engagement scale was adapted from Lam et al.'s (2014) student engagement in school measure. The original scale consisted of nine items, but only six items were used in this study to shorten the survey and avoid reverse-coded items. The six items used in this study used a 7-point Likert response scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Sample items included "I like my school" and "I like what I am learning in school." A high mean score on the affective student engagement measure indicates that a student possesses more positive feelings about learning and their school. A full list of items can be found in Table 7 in the Appendix.

Behavioral Student Engagement

The behavioral student engagement scale was adapted from Lam et al.'s (2014) student engagement in school measure. The original scale consisted of 12 items; however, only five items were used in this study to shorten the survey and avoid reverse-coded items. The six items used in this study used a 7-point Likert response scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Sample items included "In class, I work as hard as I can" and "I pay attention in class." A high mean score on the behavioral student engagement measure represents higher effort and persistence toward schoolwork. A full list of items can be found in Table 8 in the Appendix.

Results

Data were analyzed using a path analysis model, a statistical analysis technique that is used to describe and understand the conditional nature by which one or more variables influence another variable or variables (Hayes, 2013). Path analysis was chosen in part because the sample size would not allow the use of latent variables. Composite variables were created for each variable in the path analysis. The reliability of each composite variable was analyzed using Cronbach's alpha. Initial reliability coefficients were lower than desired for the leadership self-efficacy and the behavioral student engagement composite variables. A reverse-coded item was then removed from the leadership self-efficacy composite, and an awkwardly worded item was removed from the behavioral student engagement composite to improve reliability.

The final Cronbach's alpha values are shown in Table 1. All values were between .83 and .98, meeting acceptable levels of reliability (Tavakol & Dennick, 2011). The means, standard deviations, and correlations for the composite variables are also shown in Table 1. Quality of service-learning had significant positive correlations with all the other composite variables. Leadership self-efficacy and community service self-efficacy both had significant positive correlations with all three forms of student engagement. The significant positive correlations indicate initial support for the proposed hypotheses.

Results of the path analysis are shown in Figure 2. There were significant direct effects between quality of service-learning and student engagement. Quality of service-learning had a significant positive relationship with cognitive student engagement ($\beta = 0.51$, $p < .001$), affective student engagement ($\beta = 0.28$, $p = .002$), and behavioral student engagement ($\beta = 0.24$, $p = .008$). These findings support Hypothesis 1. Significant direct effects between quality of service-learning and leadership self-efficacy ($\beta = 0.28$, $p = .007$) and community service self-efficacy ($\beta = 0.34$, $p = .001$) were found to support Hypothesis 2a and 2b. For further information, refer to Table 2.

The path analysis yielded a significant indirect effect between quality of service-learning and affective student engagement through leadership self-efficacy ($\beta = 0.24$, $p = .044$), indicating that leadership self-efficacy positively mediates the relationship between quality of service-learning and affective student engagement. There were no significant indirect effects between quality of service-learning through cognitive stu-

Table 1. Means, Standard Deviations, and Correlations

		n	*M*	*SD*	1	2	3	4	5	6
1.	Quality of service-learning	98	5.88	1.07	(.96)					
2.	Cognitive engagement	98	4.22	0.79	.54**	(.92)				
3.	Affective engagement	98	6.18	0.92	.57**	.36**	(.89)			
4.	Behavioral engagement	98	6.16	0.82	.34**	.49**	.50**	(.83)		
5.	Leadership self-efficacy	98	5.81	1.20	.45**	.32**	.54**	.32**	(.98)	
6.	Community service self-efficacy	98	6.21	0.96	.49**	.26*	.61**	.23*	.50**	(.93)

Note. Diagonal values are the internal consistency estimates for each scale.

*$p < .05$, **$p < .01$

Table 2. Path Analysis Model: Unstandardized Estimates, 95% Confidence Intervals, and Standardized Estimates

Outcome	Explanatory Variable	B	95% CI	β	*p*
Direct Effects					
Leadership self-efficacy	Quality of service-learning	0.31*	0.09, 0.54	.28	.007
Community service self-efficacy	Quality of service-learning	0.31*	0.14, 0.48	.34	.001
Cognitive engagement	Quality of service-learning	0.38*	0.23, 0.53	.51	.000
Affective engagement	Quality of service-learning	0.24*	0.09, 0.39	.28	.002
Behavioral engagement	Quality of service-learning	0.18*	0.01, 0.36	.24	.008
Indirect effects via LSE					
Cognitive engagement	Quality of service-learning	0.07	−0.06, 0.21	.11	.300
Affective engagement	Quality of service-learning	0.18*	0.05, 0.31	.24	.044
Behavioral engagement	Quality of service-learning	0.14	−0.01, 0.30	.21	.074
Indirect effects via CSE					
Cognitive engagement	Quality of service-learning	−0.04	−0.22, 0.13	−.05	.643
Affective engagement	Quality of service-learning	0.35*	0.18, 0.52	.36	.000
Behavioral engagement	Quality of service-learning	0.01	−0.19, 0.21	.01	.097

Note. $N = 96$. *$p < .05$. LSE = leadership self-efficacy; CSE = community service self-efficacy.

dent engagement or behavioral student engagement through leadership self-efficacy. These results only partially support Hypothesis 3a. Similar results were found when Hypothesis 3b was tested. There was a significant indirect effect between quality of service-learning and affective student engagement through community service self-efficacy ($\beta = 0.36$, $p < .001$), indicating that community service self-efficacy positively mediates the relationship between quality of service-learning and affective student engagement. There were no significant indirect effects between quality of service-

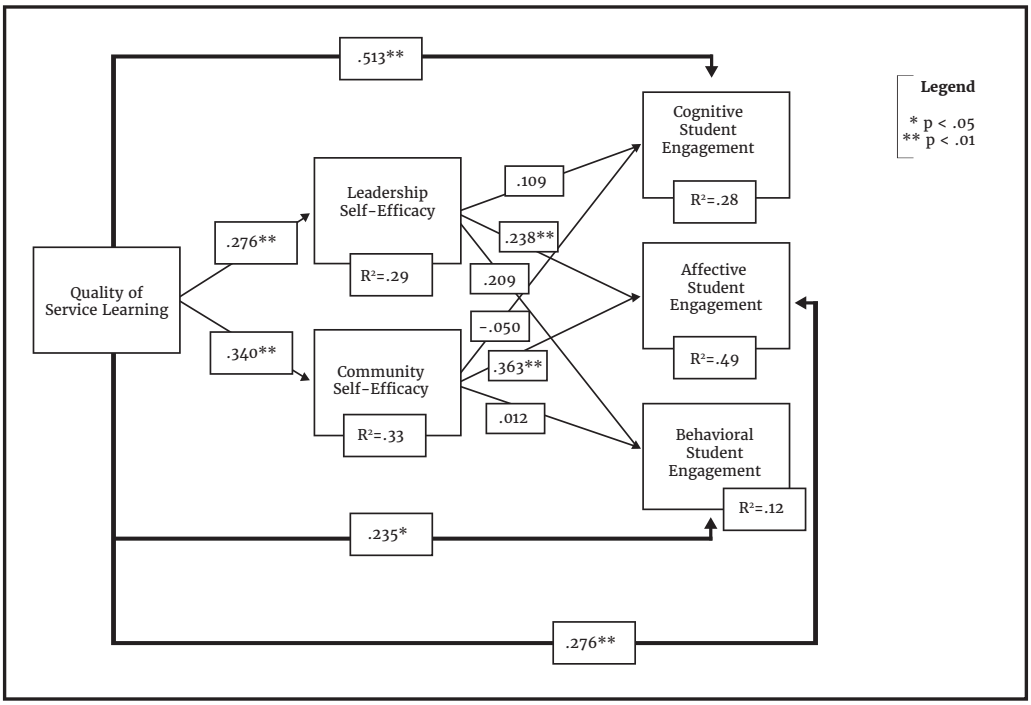

Figure 2. Path Analysis Model Results: Standardized Estimates and Variance Explained
Note. $N = 96$. Results of the path analysis model with the standardized coefficients for direct and indirect effects, $*p < .05$, $**p < .01$. R^2 values represent the amount of variance explained by the path in the model.

learning and cognitive student engagement or behavioral student engagement through community service self-efficacy; thus, Hypothesis 3b is only partially supported. For further information, refer to Table 2.

The R^2 of each outcome variable is shown in Figure 2. Quality of service-learning explained 28% of the variance in cognitive student engagement, 49% of the variance in affective student engagement, and 12% of the variance in behavioral student engagement. In addition, quality of service-learning explained 29% of the variance in leadership self-efficacy and 33% of the variance in community service self-efficacy.

Discussion

This study expanded on previous research on the outcomes of service-learning by exploring how the perceived quality of the service-learning experience influences student outcomes. Our findings reinforced and expanded upon previous research (Astin et al., 2000; Conrad & Hedin, 1981; Lam et al., 2014; Ouweneel et al., 2013; Reeb et al., 2010; Song et al., 2017; Whitley, 2014) by showing that the quality of service-learning relates to student engagement, leadership self-efficacy, and community service self-efficacy. We found that the quality of service-learning experience was positively related to cognitive, affective, and behavioral student engagement, suggesting that the opportunity for learning experiences and reflection stimulates greater student action and involvement in the school experience. The data also showed that students felt greater leadership self-efficacy and community service self-efficacy when they had a high-quality service-learning experience. This result suggests that a high-quality service-learning experience provides the foundation for students to grow more confidence in their ability to take action through leadership or community impact.

Results of the path analysis model demonstrated that leadership self-efficacy and community service self-efficacy mediate the relationship between quality of service-learning and affective student engagement. This shows that the higher quality service-learning experience enables the students to feel greater confidence in their leadership abilities, which in turn propels them to be more affectively engaged in school. Along the same lines, high-quality service-learning experience enables students to feel more

confident in their ability to impact the community, therefore stimulating greater affective engagement. These results suggest that a high-quality service-learning experience helps build students' confidence in their leadership and community impact abilities. Further, this greater sense of confidence may inspire more positive feelings toward their school and their learning endeavors, consistent with the theory of experiential learning (Kolb & Kolb, 2012; Whitley, 2014). Higher quality service-learning experiences relate to positive outcomes for students, specifically in their leadership self-efficacy, community service self-efficacy, and affective engagement.

Leadership self-efficacy and community service self-efficacy were not significant mediators between quality of service-learning and cognitive student engagement or behavioral student engagement. Cognitive student engagement focused on students' dedication to using certain cognitive strategies when learning, whereas behavioral student engagement focused on students' effort and persistence in their schoolwork. The disconnect between leadership and community service self-efficacy with cognitive and behavioral engagement may result from self-efficacy focusing more on feelings and perceptions, whereas cognitive and behavioral engagement focus more on concrete action or behavior (Lam et al., 2014). Lam et al. described affective engagement as primarily focused on feelings, whereas behavioral engagement focuses on effort and persistence, and cognitive engagement describes learning strategies that students adopt and employ. Students' feelings of confidence in their leadership abilities or community impact do not seem to be correlated with student studying habits, learning efforts, and class participation. This could be due to the difference between efficacy and engagement as discussed above or the difference in context from general beliefs in leadership and community service self-efficacy compared to applying action and engagement in an educational setting.

Theoretical Implications

This study supported and built upon previous evidence under the experiential learning theory. Experiential learning asserts that when students are actively involved in their learning through experience and reflection, it will lead to personal and intellectual growth (Gray et al., 2000; Whitley, 2014). Our research found that quality service-learning experiences and reflection opportunities gave students increased confidence in their leadership abilities and community impact ability while also increasing their affective engagement in school. In short, we found that the quality of the service-learning experiences plays an important role in how much the students learn and grow.

Second, this study adds to previous understandings of the influence between self-efficacy and engagement. Previous research that linked self-efficacy with engagement used measures of general self-efficacy or academic self-efficacy (Astin et al., 2000; Conrad & Hedin, 1981; Song et al., 2017). The present research expanded the theoretical understanding of the impact of self-efficacy by homing in on the influence of leadership self-efficacy and community service self-efficacy. Future research could benefit from continuing to explore these more specific facets of self-efficacy. This study also recognized subcategories of student engagement: cognitive, affective, and behavioral. The results were not the same across these three types, expanding our knowledge and indicating that there is more to discover under the overarching umbrella of student engagement.

Third, this study is on the forefront of providing evidence that the students' perceptions of the quality of their service-learning experience can impact their outcomes. We believe that it is not enough to simply participate in a service-learning experience to gain the positive outcomes of self-efficacy and engagement. Previous research made comparisons between the outcomes of students who participated in service-learning and those who did not (Astin et al., 2000; Gray et al., 2000; Song et al., 2017; Weiler et al., 1998). Our results showed that the quality the students felt their service-learning experience provided impacted their community service self-efficacy, leadership self-efficacy, and student engagement. This distinction expands the theoretical foundation of service-learning research by demonstrating the importance of the quality of the experience rather than only focusing on whether a service-learning experience took place.

Practical Implications

This study provides many implications for

college and university faculty, administrators, and students. The results of this study are a call to action telling college administration and faculty that higher education needs more than the mere existence of service-learning courses or experiences. The focus should rather be turned to the quality of experiences these service-learning courses provide to students. Recognizing this need also highlights the lack of universal service-learning standards at the higher education level. The service-learning standards laid out at the K-12 level provide a good starting point but are not sufficiently applicable to the higher education context (RMC Research Corporation, 2008). Researchers, along with higher education administrators and faculty, should work to form these standards and best practices for service-learning in order to solidify the quality of higher education service-learning experiences.

Previous research offers many key elements and best practices for creating high-quality service-learning experiences. Kolb and Kolb's (2012) learning cycle of (a) *grasping* experience through abstract conceptualization and concrete experience, and then (b) *transforming* experience through active experimentation and reflective observation emphasizes two key elements that distinguish service-learning from other learning experiences: application and reflection. Applying these elements as well as the standards laid out by the National Youth Leadership Council provides a starting point for creating more high-quality service-learning experiences (RMC Research Corporation, 2008). Administrators should provide faculty with the resources and training to support creating and carrying out a high-quality service-learning experience for students (Gray et al., 2000). Faculty and teachers should focus on the skill development, intellectual stimulation, confidence, motivation, application of learning, and personal growth that their service-learning course provides to students (Gray et al., 2000; Song et al., 2017). By bringing the quality of service-learning experiences to the forefront of service-learning design, higher education faculty and administrators stand to improve student outcomes even more profoundly.

This study also provides critical information to students on more than the benefits of participating in quality service-learning experiences. Teachers can further contribute to the impact of these findings by educating their students and advisees about the benefits that service-learning courses can provide. The increases in student engagement, leadership self-efficacy, and community service self-efficacy can benefit them not only during their time in school but also as they enter the workforce and become independent members in the community. This study and previous research have demonstrated that when students engage in this learning cycle of experience and reflection they stand to benefit personally, academically, and professionally (Astin et al., 2000; Gray et al., 2000; Song et al., 2017; Weiler et al., 1998).

Limitations and Future Directions

One limitation of this study is that all the measures used were self-reported by the students, a practice that can introduce biases and errors in the data because students may misreport their feelings, behaviors, or perceptions. The students' ratings of engagement may differ from what a teacher reports based on classroom observations. We also did not gather data on the teachers' ratings of the quality of the service-learning experience. Future research should gather measures from students and teachers to gain a clearer, more accurate picture of the relationships between these variables.

A second limitation is that the data is cross-sectional, which presents the possibility of common method bias (Podsakoff et al., 2003). Due to the cross-sectional and self-reported nature of the study, we cannot infer causality from the data obtained. Additionally, although all the data were collected at the same time, the interval between student participation in each course and time of survey varied from student to student. Future research should attempt a longitudinal or pretest–posttest research design to better interpret the causal nature of the effect that quality of service-learning might have on student outcomes. Further, future research should gather the measures at the time of a student's service-learning experience to ensure more accurate reporting.

The third limitation is the lack of a control group in this study. All the students in the study had participated in at least one service-learning course while at their current university. The data from these students about their self-efficacy and engagement were not compared to that of students who had never participated in a service-learning

course. Furthermore, data were not obtained to compare students' ratings of quality for a service-learning course and the quality of one of their regular, non-service-learning courses. Future research should explore these opportunities for comparison between types of courses to better solidify and define the relationships between service-learning experiences, self-efficacy measures, and student engagement.

A fourth limitation is the relatively small sample size. A sample size of about 100 students made many of the preferred analyses for testing the proposed model (CFA, SEM, etc.) impossible. Because of the small sample size, we view the current study as a starting point. The data provide initial indications of meaningful relationships that need more exploration, likely by researchers who are able to incentivize participation among students, thereby ensuring a greater response rate and data for more powerful statistical analysis. We hope that future research will have the ability to replicate and extend these preliminary findings.

There are other opportunities for expansion upon this study in future research as well. This study focused on leadership self-efficacy and community service self-efficacy, but similar relationship analysis may be applicable to additional forms of self-efficacy, such as general self-efficacy (Chen et al., 2001) and academic self-efficacy (Midgley et al., 2000; Vonthron et al., 2007). Exploring these other forms of self-efficacy along with quality of service-learning and cognitive, affective, and behavioral student engagement may present new relationships for follow-on research. Efforts in these areas will expand our understanding of how quality of service-learning can impact different forms of self-efficacy.

Furthermore, many other outcomes could be explored in conjunction with quality of service-learning, such as grades, achievement, career choice, and future community service. Previous studies have found a distinction in the impact of involvement in service-learning activities on these outcomes (Astin et al., 2000; Gray et al., 2000; Song et al., 2017; Weiler et al., 1998) but have not examined the impact of quality of the service-learning experience. Continuing to learn about the impact and relationships of service-learning quality is critical to developing service-learning courses and experiences that maximize benefits to students.

Another potential future direction would be to consider the role of autonomy and motivation in service-learning quality. For example, research concerning self-determination theory might suggest that quality of service-learning vis-à-vis self-efficacy has more to do with an internal locus of control than self-efficacy as such (Ryan & Deci, 2020). Thus, future work should consider assessing locus of control, in addition to the efficacy measures collected here, to parse the relationships with service-learning quality.

Conclusion

Our results showed support for a new frontier in service-learning research: the impact of the quality of the service-learning experience on student outcomes rather than solely focusing on the presence or absence of the service-learning experience. We found that when students perceived their service-learning experience to be of higher quality, they reported increases in their leadership self-efficacy, community service self-efficacy, cognitive engagement, affective engagement, and behavioral engagement. In addition, we found evidence that leadership self-efficacy and community service self-efficacy mediate the relationship between quality of service-learning and affective student engagement. This study demonstrates the importance that schools, teachers, and students should attach to having high-quality service-learning experiences in order to facilitate personal growth and experience.

About the Authors

Joseph A. Allen *is a professor of industrial and organizational psychology at the University of Utah School of Medicine.*

Kaitlin Fosler *is a global organization effectiveness manager at ACI Worldwide.*

Kelly Prange *is an organizational consultant with Category One Consulting, a local consulting firm in Omaha NE.*

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Appendix

Table 3. Quality of Service-Learning Items

1. Helped me develop valuable skills.
2. Applied what I learned in my classes.
3. Enhanced my understanding of community issues.
4. Was intellectually stimulating.
5. Increased motivation to pursue a career in my field.
6. Increased self-confidence about working in my field.
7. Stimulated interest in learning about community issues.
8. Contributed to my personal growth.
9. Fulfilled my expectations.

Note. Items were measured on a 7-point Likert scale from 1 = *strongly disagree* to 7 = *strongly agree*.

Table 4. Leadership Self-Efficacy Items

1. I am confident of my ability to influence a group that I lead.
2. Overall, I believe that I can lead a group successfully.
3. I have confidence in my ability to lead.
4. Most people leading a group can do it better than I can.
5. I have the abilities to lead a group successfully.

Note. Items were measured on a 7-point Likert scale from 1 = *strongly disagree* to 7 = *strongly agree*.

Table 5. Community Service Self-Efficacy Items

1. I can change the world for the better by getting involved in my community.
2. I can make my community a better place by helping others in need.
3. There are things I can do to make the world a better place.

Note. Items were measured on a 7-point Likert scale from 1 = *strongly disagree* to 7 = *strongly agree*.

Table 6. Cognitive Student Engagement Items

1. When I study, I try to understand the material better by relating it to things I already know.
2. When I study, I figure out how the information might be useful in the real world.
3. When learning new information, I try to put the ideas in my own words.
4. When learning things for school, I try to see how they fit together with other things I already know.
5. I try to see the similarities and differences between things I am learning for school and things I know already.
6. I try to understand how the things I learn in school fit together with each other.

Note. Items were measured on a 5-point scale from 1 = *Never* to 5 = *Always*.

Table 7. Affective Student Engagement Items

1. I think what we are learning in school is interesting.
2. I like what I am learning in school.
3. I enjoy learning new things in class.
4. I like my school.
5. I am proud to be at this school.
6. Most mornings, I look forward to going to school.

Note. Items were measured on a 7-point Likert scale from 1 = *strongly disagree* to 7 = *strongly agree*.

Table 8. Behavioral Student Engagement Items

1. In class, I work as hard as I can.
2. When I'm in class, I participate in class activities.
3. I pay attention in class.
4. If I have trouble understanding a problem, I go over it again until I understand it.
5. I take an active role in extra-curricular activities in my school.

Note. Items were measured on a 7-point Likert scale from 1 = *strongly disagree* to 7 = *strongly agree*.