


Linking Class and Community: An Investigation of Service Learning

Teaching of Psychology
1-8
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DOI: 10.1177/0098628317711317
journals.sagepub.com/home/top


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Abstract

This study contributes to the service learning (SL) literature by providing new empirical evidence of learning from a problem-based SL research project conducted in a developmental research methods course. Two sections of the course taught in a traditional manner were compared to two sections of the course taught with an integrated SL project involving a local Boys & Girls Club. Pre- and posttest scores of the groups were compared in regard to content knowledge, civic engagement, and perceptions of the course. Results indicated that the SL students outperformed the control courses in learning outcomes. Civic engagement did not significantly change over the course of the semester. Student preference data indicated that most enjoyed the SL course, found it helpful, and thought it contributed to their understanding of the course material. The findings are related to past research and theoretical underpinnings that support SL.

Keywords

service learning, civic engagement, experiential learning, problem-based learning theory

Service learning (SL) is an innovative and impactful teaching method that embeds itself easily into many psychology courses due to the nature of the academic domain. Using an SL paradigm, psychology students can conduct research for community organizations, often leading to direct work with diverse populations (e.g., age, gender, race, and class) on various issues (e.g., mental health, education, and business) all within the curriculum of required courses. SL is defined and grounded in educational learning theory as well as supported as a viable teaching pedagogy through current research. This article works to link class and community by investigating an SL paradigm employed in a developmental research methods course.

SL, as defined by Bringle and Hatcher (1995), is

a course-based, credit-bearing educational experience in which students (a) participate in an organized service activity that meets identified community needs and (b) reflect on the service activity in such a way as to gain further understanding of course content, a broader appreciation of the discipline, and an enhanced sense of civic responsibility. (p. 112)

In SL, a partnership is formed between a group of learners and a community agency with a project or need. Faculty incorporate a project into their course that is related to the community partner's need. This real-world experience becomes the basis of reflection and learning for the student (Fleck, Smith, & Ignizio, 2015). Based on the definition, it ought to be clarified that SL should not be confused with everyday community service. Strage (2000) explains two clear differences between volunteerism and SL. One is that SL is explicitly linked to

curricular objectives, and the other is that it is held to a degree of academic rigor, especially during the reflection process. The service work is clearly tied to the content of the course through such reflection (Campus Compact, 2003). Although general service requirements have been found to be beneficial for undergraduate students (see Astin & Sax, 1998; Astin, Sax, & Avalos, 1999), the effects of SL are enhanced because of the reflection process and the connection of the service to the course material (Conway, Amel, & Gerwien, 2009).

Theoretical Foundations of SL

One theoretical basis for SL comes from the American educational theorist, David Kolb, with his *Experiential Learning Theory* (1984). In this theory, Kolb claims that knowledge is created through the transformation of experience. In this view, ideas or beliefs are not stagnant; they can be reformed by each new involvement in a setting. This reimagining and reinvention of preconceived ideas through inquiry is present in any community-based service opportunity. The SL method exposes students to individuals, groups, and social issues that they may not have otherwise experienced. It is fully experiential in its nature. The experiences and reflection that students participate

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Table 1. Descriptive Statistics by Course.

Variable	Service Learning	Control	<i>p</i>
	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	
Content knowledge pretest	7.38 (2.44)	8.03 (2.39)	.28
Content knowledge posttest	12.32 (1.59)	10.85 (3.25)	.02*
Civic engagement pretest	75.85 (15.93)	73.52 (15.22)	.54
Civic engagement posttest	76.34 (13.50)	73.38 (16.73)	.46
Reported absences	1.85 (1.44)	1.36 (1.27)	.15

*Indicates significance.

in helps them to grapple with new course material, theoretically increasing the depth of their information processing (Scales, Roehlkepartain, Neal, Kielsmeier, & Benson, 2006; Sheckley & Keeton, 1997).

Another learning theory relevant to many SL paradigms is problem-based learning theory (PBLT). PBLT is a student-centered pedagogy that focuses on a project or problem that is experienced by the students as means for instruction (Helle, Tynjala, & Olkinuora, 2006; Hmelo-Silver, 2004). Students are expected to learn by completing meaningful, self-directed tasks, followed by reflection on the process. The purpose of this method is to help students develop their problem-solving skills, collaboration skills as well as increase their ability to self-direct their learning and remain intrinsically motivated (Hmelo-Silver, 2004). SL often reflects the principles of PBLT. During students' period of service, they are engaged in situations where they face purposeful tasks and goals. Students must find the most effective solutions for their tasks, make connections with the content of the course, and reflect on the "bigger picture," striving to improve their work and to meet the community partner's needs. Also, many SL projects, such as the one presented in this study, have students working specifically on community-identified problems, including social justice issues, research projects, or service needs. For other specific SL examples, see Bringle and Hatcher (1995), Connor-Greene (2002), DePrince, Priebe, and Newton (2011), as well as Fleck, Smith, and Ignizio (2015).

Outcomes Related to SL

Because SL is theoretically sound, it has been the topic of much previous research (for large-scale meta-analytic studies, see Celio, Durlak, & Dymnicki, 2011; Conway et al., 2009; Novak, Markey, & Allen, 2007; Warren, 2012; Yorio & Feifei, 2012). For instance, the Association of American Colleges and Universities and researcher George Kuh (2008) labeled SL a "high-impact" experiential learning methodology. Kuh suggests that SL provides benefits for learning and cultivates a community of democracy by increasing civic engagement.

Perceived and Actual Learning

Arguably, the most important question for teaching scholars is whether SL has empirical support to improve student learning.

The American Psychological Association (APA) released guidelines, with five goals, for the undergraduate major in 2013 (APA, 2013). The first goal is knowledge base, which includes knowing key concepts and applications in the field. Regarding SL helping students learn fundamental psychological knowledge, some studies have investigated students' perceptions and found that students enjoyed SL courses and *believed* they learn more. For example, Madison and Trunbull (2006) conducted a qualitative study in which they asked students 16 questions about their experiences in an SL course. The themes from their responses included learning more, clearly seeing a connection between the project and the course material, enjoyment of learning, and general surprise that they learned as much as they did. All of the students said that the benefits of the course outweighed the challenges. Peterson, Wardwell, Will, and Campana (2014) found that undergraduate psychology students who participated in a career preparation seminar with an SL component enjoyed helping others, thought they increased their knowledge of diversity, and learned more about their psychology degree. Moely, McFarland, Miron, Merce, and Illustre (2002) reported similar results using quantitative data where students who participated in SL were compared to those who did not. SL students had greater satisfaction with their courses and reported higher levels of learning. Students also reported increased academic understanding in studies done with introduction to psychology students (Kretchmar, 2001), educational psychology students (Simons & Cleary, 2006), and low-income middle and high school students (Scales et al., 2006).

Researchers have also worked to document observed increases in learning as opposed to just student perceptions; however, the results have been mixed at times. Strage (2000) compared students in two sections of a child development class embedded with an SL paradigm to students who took the course in previous semesters with no SL. Actual learning was assessed by comparing scores on midterm and final exams as well as graded course essays. Not only did the SL students gain more points on their exams than the non-SL students, but their course essays also demonstrated greater depth in reflection on the course content related to the service experiences happening in the community. In another study, DePrince and colleagues (2011) found that students in a research methods course with an SL component (learning about violence against women) increased their research methods content knowledge, determined by comparing a pretest to a posttest knowledge assessment. However, the study did not find a significant difference between the amount that the SL students learned and the amount that students learned in a similarly taught control course utilizing project-based learning but not SL.

Civic engagement. According to Saltmarsh, Hartley, and Clayton (2009), higher education needs to live up to its democratic purpose to prepare students for civic responsibility and create educational experiences that allow them to experiment with and practice democracy. The APA concurs in its Guidelines for the Undergraduate Psychology Major, with the third goal

being, “ethical and social responsibility in a diverse world” (2013, p. 26). Objectives for students under this goal include applying ethical standards, fostering interpersonal relationships, and adopting values that build from community up to global levels.

It appears that higher education is responding to the call, and SL is, in fact, gaining prominence. A growing body of literature indicates that SL contributes to students’ sense of civic engagement (Conway et al., 2009; DePrince, Priebe, & Newton, 2011; Eyer & Giles, 1999; Moely, McFarland, Miron, Merce, & Illustre, 2002; Simons & Cleary, 2006). Simons and Cleary (2006) found that almost half of the 140 students they surveyed in an SL class continued their service after the course-required hours. The students showed increases in civic engagement and community self-efficacy. Furthermore, the majority reported that they would engage in future SL activities. Similar results have also found long-term impacts of incorporating SL in the classroom (Moely et al., 2002). Bowman, Brandenberger, Lapsley, Hill, and Quaranto (2010) surveyed 416 students 13 years after their graduation. Results indicated that taking at least one SL course was a significant predictor of adult volunteering, which in turn predicted overall well-being.

Student preferences. Other studies from psychology and other fields have investigated the various effects that SL has on college students’ preferences and attitudes and have yielded supportive results. Gallini and Moley (2003) found that students who took SL courses reported more positive attitudes than non-SL students in the areas of community engagement, academic engagement, academic challenge (course difficulty), retention, and interpersonal engagement (the ability to work with others effectively, communicate, and make friends). Similar results suggest that retention, academic challenge, community engagement, and academic engagement were higher for students who engaged in 2–3 hr a week (or more) of SL (Farnsworth, 2009).

In sum, the literature reviewed indicates numerous positive effects from SL paradigms. The goal of the current study was to contribute to this growing body of literature by investigating a new and unique problem-based SL course. Also, the current study examined effects of an SL course within participants (from the start of the semester to the end) as well as between participants by utilizing a control group. In this way, the study aimed to provide additional and new empirical data assessing the SL paradigm.

The specific research questions of this study first asked how learning outcomes compared to students in the SL courses to those in the traditionally taught courses. It was hypothesized that SL student learning would be greater than the non-SL students. Second, we asked if students’ sense of civic engagement was affected by the SL experience. It was hypothesized that the SL paradigm would increase students’ sense of civic engagement and that SL students’ civic engagement would be higher at the end of the semester compared to non-SL students. The last research question was exploratory in nature. We wanted to learn about students’ perceptions of the SL course experiences.

Method

Participants

Originally, 84 students consented to participate in the study. Due to missing data at either the start or the end of the semester, 17 students were dropped from the analyses. The resulting number of students was 67, of whom 60 were females and 7 males. The majority self-reported as Caucasian (71.6%), followed by Hispanic (11.9%), Latino (6.0%), multiracial (4.5%), indigenous (3.0%), African American (1.5%), and Asian/Pacific Islander (1.5%). Six students were sophomores, 37 juniors, and 23 were seniors. Students’ ages ranged from 19 to 58 ($M = 26.76$, $SD = 7.68$). There were a total of 34 students who participated in the SL courses (3 males and 31 females) and 33 students who participated in the control class taught without SL (4 males and 29 females).

Materials

Demographic questions. At the start of the semester, participants were given a four question demographic survey. The questions requested participants’ age, gender, race, and education level.

Civic engagement. To assess civic engagement, a version of the Community Self-Efficacy Scale was used (Reeb, Katsuyama, Sammon, & Yoder, 1998). DePrince and colleagues (2011) modified the original scale, and the revised version was used in the current study. The revisions included changed phrases such as “community service” to “community engaged research.” This change resulted in a survey that focused on measuring students’ self-efficacy to do community engaged research in the future. Students were presented with 10 questions prompted by this statement: “Thinking about the future (that is, beyond this class), please rate the items below on the following scale.” Certainty was rated on a 10-point scale (1 = *quite uncertain* and 10 = *quite certain*). A sample item includes, “I am confident that, through community-engaged research, I can make a difference in my community.” Participants’ total scores could range from 10 being *the least civically engaged* to 100 being *the most civically engaged*. The participants completed this questionnaire at the start and end of the semester.

Content knowledge. To assess students’ understanding of research methods, a pre- and postcontent knowledge test was created. The assessment contained 15 multiple-choice questions that were developed by another professor in the psychology department who also teaches the course. The course instructor in the study did not see the assessment until the study had closed to avoid the possible influence of teaching to the test. The pre- and posttests were exactly the same and were given at the start and end of the semester by a third-party researcher. The scores could range from 0 (*no correct answers*) to 15 (*all correct answers*).

Course feedback. To learn about students' preferences for the course, students answered a 10-question survey written by the researchers at the end of the semester. In the survey, participants were asked how helpful their class project (either SL or the regular group project) was for their understanding of the course material. Students answered these questions on a 5-point scale ranging from 1 (*not very helpful*) to 5 (*very helpful*). One question asked students to rate their experience with the project compared to traditional courses in regard to level of difficulty, enjoyment, and work (less, equal, or more). Another question asked students how much the project helped them comprehend the course information (produced less comprehension, equal, or increased comprehension). Other questions asked the number of times students were absent, the biggest challenge they faced in their project (open-ended), and if they visited their professor outside of class time for help on their project (yes or no). Finally, participants were presented with nine adjectives (annoying, fun, helpful, distracting, entertaining, waste of time, beneficial, irrelevant, and engaging) and asked, "Overall, how would you rate your experience with service learning (or group learning) this semester? Circle as many as apply."

Procedure

To participate in the study, all students signed a detailed consent form. Recruitment happened during the first class meeting and was conducted by a third-party researcher. After obtaining consent, participants completed the demographic survey as well as the pretests for civic engagement and content knowledge. The start of the semester measures took about 15 min to complete. At the end of the semester and after taking the final exam, participants were given the end of the semester measures, which included the course feedback survey as well as the posttests for civic engagement and content knowledge. Again, this took about 15 min to complete. Participants were thanked and provided a debriefing form when leaving the classroom, regardless of whether they participated or not. There was no compensation or course credit given to participants as well as no penalties given to those who chose not to participate.

Four total class sections of developmental research methods were used in this study. All sections were taught by the same professor, utilizing the same textbook, prepared lectures, and small-scale course assignments regularly used to promote an active student-centered learning environment (i.e., practice sheets, statistics labs, group discussions, and mini-experiments). Two sections were taught traditionally (one in the fall and one in the spring), and two sections were taught using the SL paradigm (again, one in the fall and one in the spring). Students did not know ahead of time that the course they were enrolling in included SL or not. The professor explained the SL course requirements during the first class meeting and offered to assist anyone who wished to switch sections; however, no students did so. Developmental research methods is a required course for human development psychology majors. This is students' first and only required exposure to research methods; however, they take an additional and separate statistics course.

In the control classes, students were required to complete a group research project on a topic of their choosing with a developmental focus. They had to complete an institutional review board (IRB) application for their project, collect data, analyze data, and then individually write an APA-formatted paper based on their project. The two courses using the SL paradigm were taught in the same way as the traditional; however, the students completed their research project with a community partner, The Boys & Girls Club (B&GC), instead of doing a project on a topic of their choosing. At the beginning of the semester, administrative representatives from the B&GC came to the class to discuss some of their needs and challenges. After the administration left, the class reflected on the course goals, the goals of the B&GC, and then set commitments to work toward achieving during the project. The overall goal of the SL project was to help the B&GC to understand youth attendance patterns, a topic the B&GC identified as important and needing of attention. All project components were the same as the control classes. The SL students completed an IRB application and then collected data with the youth attending the B&GC, at various club locations. The students' only face-to-face engagement with the youth at the B&GC was during data collection. At the end of the semester, groups in both types of courses presented their findings to the rest of the class. The community partner also attended the presentations in the SL classes.

An important difference between the control and the SL courses was the discussions in which students participated. In the control classes, students discussed their individual project progression, reflecting on their unique successes and challenges. For example, one topic of discussion focused on their sampling and recruitment procedures after collecting data. The small group discussions then fed into larger class discussions. Because an important aspect of SL is reflection, the SL courses discussed these same topics but further reflected on the relationship and impact the project was having on the B&GC. For example, the groups not only discussed the same questions as the control group after collecting data but also thought about their impact on the youth at the club in regard to being college students doing research. They reflected on the actual data collected (e.g., what the youths' responses actually meant for them in their life), if the youth sampled represented the club as a whole, and what suggestions they had to strengthen sampling procedures in the future so that the B&GC would obtain the most valid data possible. In this way, the partnership between the class and the B&GC was strengthened because each semester, through reflection, the project ran more smoothly and the data obtained for the B&GC was more valid and reliable. When the club administration returned for final presentations, time was also dedicated to reflecting on the commitments, the project's impact, and the students' experience during the semester. The successes and challenges of the project from a practical and thoughtful standpoint were addressed, and suggestions were made for future courses.

To gain a more complete understanding of the SL course components, please see the published *Developmental Research*

Methods syllabus that is available on the Society for the Teaching of Psychology Project Syllabus website (Anonymous, in press). There are only slight variations (edits made for publication) between the published syllabus and the syllabus used in the SL classes (Fleck, 2016).

Results

Content Knowledge

A *t*-test was run with the students' pretest for content knowledge scores to see if differences existed before taking the course. No differences were seen at the start of the semester, $t(65) = -1.10, p = .276$. Nevertheless, an analysis of covariance (ANCOVA) was run controlling for pretest scores to examine differences in students' posttest for content knowledge scores. Results show a significant difference, $F(1, 64) = 5.57, p = .02, \eta_p^2 = .08$, with students in the SL course scoring significantly higher ($M = 12.32, SD = 1.59$) than those in the control course ($M = 10.85, SD = 3.25$; Table 1).

Civic Engagement

A similar analysis was conducted to determine if there were any differences in students' civic engagement. A *t*-test was run to examine students' pretest scores on civic engagement. No significant differences were found between the two courses at the start of the semester, $t(65) = .61, p = .51$. An ANCOVA was run controlling for pretest civic engagement scores to examine differences in students' civic engagement scores at the end of the semester. Although students in the SL course tended to score higher ($M = 76.34, SD = 13.50$) than those in the traditional course ($M = 73.38, SD = 16.73$), the differences were not significant, $F(1, 55) = .56, p = .46$.

Student Perceptions

Finally, analysis of the course feedback survey provides information regarding students' preferences for the SL course. A number of χ^2 goodness-of-fit tests were run to examine potential differences in SL students' perceptions of their course. Because of this, a Bonferroni correction ($\alpha/12 = .004$) was applied. In regard to whether students felt SL was helpful in understanding course material, they were significantly more likely to view SL as helpful, $\chi^2(4, N = 34) = 43.94, p < .001$, and more enjoyable, $\chi^2(2, N = 34) = 33.59, p < .001$. In regard to perceptions of difficulty, most felt SL was equally difficult to a traditional course, $\chi^2(2, N = 34) = 7.82, p = .02$; however, this finding was not considered significant given the Bonferroni correction. Regarding perceived workload, the sample was split between perceptions that SL was either equal or more work than a traditional course, $\chi^2(2, N = 34) = 14.18, p = .001$.

Students were also presented with nine adjectives (e.g., fun, helpful, and distracting) and asked to circle as many as applied in describing the course (see Figure 1). As expected, students were significantly less likely to view SL as annoying,

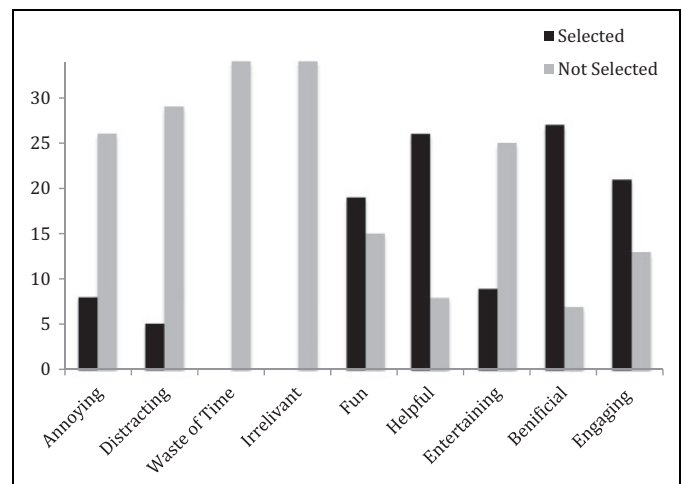


Figure 1. Frequency of adjectives selected to describe the service learning (SL) course.

$\chi^2(1, N = 34) = 9.53, p = .002$, or distracting, $\chi^2(1, N = 34) = 16.94, p < .001$, and more likely to see it as helpful, $\chi^2(1, N = 34) = 9.53, p = .002$, and beneficial, $\chi^2(1, N = 34) = 11.77, p = .001$. Three tests were not significant, including perceptions of SL being more fun, $\chi^2(1, N = 34) = .471, p = .49$, engaging, $\chi^2(1, N = 34) = 1.88, p = .170$, or entertaining, $\chi^2(1, N = 34) = 7.53, p = .006$ (not significant due to Bonferroni correction). Two adjectives could not be tested because the variable was constant. Specifically, all 34 students believed the SL was not a waste of time and was not irrelevant.

Student Behaviors

The course feedback survey provided two occasions to compare the SL and control classes. We asked if there were differences in regard to number of absences they had and if they had visited the professor for help with their project outside class time. There was no difference in students self-reported number of absences, $t(65) = 1.47, p = .145$. A chi-square test of independence was calculated to examine the relation between students' reported behavior of going to see the professor (yes or no) between the SL and the control courses. There was a significant relation, $\chi^2(1, N = 67) = 4.32, p = .038$, with more students in the SL classes going to see the professor outside class than the control classes (61.76% vs. 36.36%, respectively).

Open-Ended Responses

One last question on the course feedback questionnaire worth investigating was open ended asking students what the biggest challenge was with their project. We grouped the answers into common response categories. For the SL participants, the biggest challenge was finding time to work with their peers ($n = 14, 41.2\%$). Understanding the content was the least prevalent reported problem ($n = 1, 2.9\%$). The biggest challenge in the control class was group conflict ($n = 9, 27.3\%$), followed

closely by finding time to meet with their peers ($n = 7, 21.2\%$). Again, content was not a problem ($n = 4, 12.1\%$). The only category that was unique to the SL classes was challenges faced working with the community partner (e.g., communication or site location) and was only reported by four (11.8%) students. The only category that was unique to the control classes was a challenge in finding participants for their project, which was reported by six (18.2%) students.

Discussion

This study sought to add new empirical data to the growing body of literature on SL by investigating the effects of a unique problem-based SL course in comparison to a traditionally taught course. There were three specific research questions and hypotheses. We first predicted that students would learn more in the SL course than the traditionally taught course. Second, we predicted that students' sense of civic engagement would be positively affected by the SL experience. Finally, we wanted to understand in an exploratory analysis what conclusions could be drawn about student preferences for the SL course.

Regarding student learning, the results suggest that students enrolled in the SL courses increased their knowledge of research methods more so than students in the control courses. The resulting evidence indicating positive learning outcomes from SL are not surprising; SL is described as a high-impact practice (Kuh, 2008). Moreover, SL can be rooted in both Experiential Learning theory (Kolb, 1984) and PBLT (Helle et al., 2006; Hmelo-Silver, 2004), both of which suggest positive impacts on student learning. Previous studies have shown such impacts, although many reported perceived learning rather than actual measured differences (Celio et al., 2011; Madison & Trunbull, 2006; Moely et al., 2002; Scales et al., 2006; Simons & Cleary, 2006; Yorio & Feifei, 2012). DePrince and colleagues (2011) found that students participating in SL learned greater course content from the start of the semester to the end. These authors suggest that SL is not a distraction and can be used as a mechanism to teach course information, a conclusion supported by the current findings.

It should also be noted that the current study used a control class as a comparison group that was hardly a control as we might traditionally think of it (i.e., lacking treatment). The control classes covered the same course content and were taught by the same instructor. They were described as traditionally taught; however, the pedagogy utilized included lecture, discussion, small group work, and was also project based. There were active student-centered learning techniques used such as practice sheets, statistics labs, group discussions, and mini-experiments. The control courses were successful in producing student learning, but so were the SL courses, which were additionally demonstrated to be beyond typical.

The second research question investigated whether or not students' sense of civic engagement was affected by the SL experience. Previous literature reports numerous growths in civic engagement due to SL, such as increases in community self-efficacy, adult volunteering, plans for civic action,

understanding of social justice issues, and continued service hours or adult volunteering hours (Conway et al., 2009; DePrince et al., 2011; Eyler & Giles, 1999; Moely et al., 2002; Simons & Cleary, 2006). The present study did not replicate the aforementioned findings, contrary to the hypothesis. It was found that civic engagement was high among all our student participants both at the start and at the end of the semester. Although mean scores for civic engagement was higher in the SL course, the difference between the two courses was not significant.

Three possible explanations exist for this finding. First, the scale used to assess civic engagement was really a measure of students' self-efficacy to do community-engaged research in the future. This is just one specific aspect of the larger construct of civic engagement. Although DePrince and colleagues (2011) saw increases due to SL using this measure, we think a scale utilizing a more broad definition that better captures the entire construct of civic engagement might have yielded different results. Most students who complete this course and their baccalaureate degree in psychology do not go on to pursue graduate school or continue to conduct community-engaged research. Measuring their self-efficacy to do so was too specific and likely not truly reflective of the students' goals. Future research should measure multiple aspects of civic engagement to capture a more global picture of potential increases in students' engagement. Suggestions for such scales can be found in Simons (2015) Society for the Teaching of Psychology eBook chapter, *Measuring Service-Learning and Civic Engagement*.

A second explanation considers the student population under investigation. Students in this sample tended to be older, urban, commuters and more diverse than those reported in much of the previous research. We think that age and increased life experiences might have contributed to their higher civic engagement scores at the onset. These students seem to be more attuned to civic action principles in general, making growth in this area more difficult to detect. Future research would benefit from further investigation into more traditional students.

Finally, a third possible reason as to why civic engagement was not found to be significant could be the use of peer discussion as the reflection piece of the course. Reflection is a key aspect of SL that makes it more than just community service by helping students draw a clear link between course content and the civic work being done (Campus Compact, 2003; Fleck et al., 2015; Strage, 2000). In fact, Conway, Amel, and Gerwien (2009) suggest that the benefits of SL are greater because of the reflection. These benefits include civic engagement. In the course under investigation, multiple peer and large group discussions were used to reflect on the SL project. In the future, more formal reflection assignments, such as written papers, ought to be required. We expect the addition of graded paper reflections will heighten students' sense of civic engagement due to the greater time and energy required with such a formal reflection (vs. group discussions where not all participate). This way each student will have to reflect on the impact

their work is having, their role in the community, and their ability to act in a civically engaged way.

The last research question under investigation aimed to explore and better understand students' preferences for the SL course. Although observed measures of student learning and civic engagement are more important than preferences, such data are still useful. For example, Astin and Sax (1998) studied 42 higher education institutions and found that participation in service activities was associated with overall student satisfaction with the college, which is suggested to increase retention. The data from the present study suggest that most students viewed the SL paradigm as beneficial and enjoyed it. Furthermore, most students also reported that SL was helpful for their comprehension of the course material. Interestingly, these positive affirmations were made although some students reported the SL course to be more work than other courses. Reed-Bouley, Wenli, and Sather (2012) found a similar result in a study conducted with 173 undergraduate students. When asked at the end of the semester about their experiences, students rated SL courses as being moderately challenging and needing more effort in comparison to a class that did not have an SL paradigm. Eighty-seven percent of these students stated that the SL course helped them take responsibility for their learning. Such academic engagement and challenge are important for retention of students at the university level (Gallini & Moley, 2003).

Negative perceptions about the course were also investigated. Very few, and sometimes zero, students reported that the SL was annoying, distracting, a waste of time, or irrelevant. Challenges within the SL courses were reported to be similar to those in the non-SL courses. Students in both formats reported that meeting with peers and completing group work in general were the largest challenges they faced. Interestingly, a difference to combat these challenges was seen between the SL and the control classes. The SL students reported visiting the professor outside class time more than the non-SL students. When students visit their professors outside class, the space and time exist to cultivate deeper relationships. This finding is supported by research that suggests SL is an active learning paradigm that offers the conditions most likely to facilitate the development of meaningful connections between students and faculty, as well as between students and the community (Braxton, Sullivan, & Johnson, 1997). Following Tinto's Theory of College Student Departure, these authors suggest (similar to positive student preferences) that cultivating meaningful relationships with faculty also results in increased retention (Braxton, Milem, & Sullivan, 2000; Tinto, 1987).

In closing, a worthwhile link between class and community can be created through SL by specifically utilizing a problem-based learning approach. The combined evidence from past research, and the new empirical data presented here, suggests clear learning benefits for SL students. Many institutions of higher education are looking for ways to increase student retention, form strong community partnerships, and embed themselves within the larger ethos of social justice and change. Psychology courses can accomplish this through SL because

they have a unique connection to service opportunities due to the content studied. The present research describes a successful employment of a unique SL project in a developmental research methods course. Faculty and instructors are encouraged to think of the possibilities that exist for projects within other psychology content areas. For example, the SL paradigm described here could be replicated in a health psychology course working at a community health center or food bank. Clinical courses could work within the VA system or at a mental health facility in need of support. We hope you consider integrating SL into your courses, assessing it, and sharing those results within the scholarship of teaching and learning literature.

Author's Note

Portions of this manuscript were presented at the 2013 National Institute for the Teaching of Psychology as well as the 2013 American Democracy Project Annual Conference. Correspondence concerning this article should be addressed to Bethany Fleck Dillen, Department of Psychology, Metropolitan State University of Denver, Campus Box 54, P.O. Box 173362, Denver, CO 80217, USA.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

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