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Comparing the Effectiveness of Service-Learning in Lower- & Upper-Division Psychology Courses

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SERVICE-LEARNING EFFECTIVENESS: LOWER & UPPER COURSES

Introduction

Service-learning is a pedagogical practice in which students participate, provide meaningful work, and reflect upon activities that meet community needs (Molderez & Fonseca, 2018). Service-learning provides students with an opportunity to apply what they are learning in the classroom to real-world settings. A critical component of service-learning is that students later reflect on their service-learning experiences. Service-learning experiences should 1). Be a credit-bearing activity; 2). Meet community needs; 3). Provide an opportunity for reflection on the activity; 4). Foster appreciation for the discipline; 5). Enhance civic responsibility (Bringle & Hatcher, 1996). Service-learning has been extensively studied, and has been shown to be an effective pedagogical technique for college students with a variety of backgrounds, and therefore, has been classified as a high-impact practice in higher education (Kuh, 2008). In addition, service-learning has been shown to increase first-year student retention (Gallini & Moely, 2003). Despite the relatively robust body of literature on service-learning, research comparing its effectiveness in lower and upper division courses remains quite limited. The aim of the current study is to shed light on the benefits of service-learning in lower and upper division psychology courses.

Service-Learning Perspectives

A number of theories have been postulated to conceptualize service-learning. The cultural and technical perspectives of service-learning are often utilized as a framework when constructing service-learning activities. A cultural perspective focuses on individuals' meaning-making within and through the context of service-learning. This perspective argues that service-learning is an ideal means to support civic engagement,

to foster democratic renewal, and to enhance an individual's sense of belonging to something greater than themselves (Barber, 1993). In contrast, the technical perspective focuses on the service-learning itself, and aims to answer questions of efficacy, quality, efficiency, and sustainability of both the process and the outcome of the innovation (Butin, 2010). The technical perspective is forefront in the service-learning literature, linking service-learning to student outcomes. The current study design will focus on the benefits of service-learning, and thus, will take a technical perspective.

"4 Rs" of Service-Learning

Irrespective of the definitional emphasis of service-learning, service-learning practitioners agree on the importance of the "4 Rs" of service-learning: respect, reciprocity, relevance, and reflection (Sigmon, 1979; Butin, 2010). First and foremost, those doing service-learning must be respectful of those being served. Additionally, members of the community should be consulted on what service is provided. Second, service-learning must also focus on reciprocity, benefitting the individuals being served as well as the students doing the service. Third, the service should be relevant and coincide with academic course content. For instance, a service-learning project may involve building housing for the homeless in the community. Although this project may meet a community need, it may not be relevant to a child psychology course. Service-learning should clearly provide students with applied learning experiences to enhance course content. Lastly, service-learning must include a reflection component. Reflection provides context and meaning to the service-learning experience.

Service-Learning Benefits

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Service-learning has an array of benefits, such as improving academic learning outcomes (Conway, Amel, & Gerwein, 2009). Students who participate in service-learning experiences develop enhanced metacognitive skills, better strategic planning, and the ability to discriminate between useful and insignificant information (Clevenger & Ozbek, 2013). Additionally, service-learning provides students with an opportunity to understand problems in a more complex and interconnected way (Kendall, 1990). Furthermore, students who participate in service-learning activities have higher course grades than students who do not participate in service-learning experiences. Students in the service-learning sections worked directly with children at a local school, whereas, students in the non-service-learning sections completed structured observations through a one-way mirror. Specifically, students who were enrolled in service-learning sections of Child Development earned grades that were 4.8% higher than their peers in non-service-learning sections of Child Development (Strage, 2004).

Research has shown that students who participate in service-learning activities also obtain psychological benefits. Students who engage in service-learning may see increases in self-esteem and self-efficacy (Conway, Amel, & Gerwein, 2009). Eighth graders who participated in service-learning activities reported higher self-esteem than their peer who did not participate in service-learning activities (Billig, 2002). Undergraduate students may also benefit: Hilarski (2013) reports that service-learning activities resulted in increased self-efficacy.

Service-learning experiences have been shown to increase student's teamwork and leadership skills (Shephard, 2008). Employers of students who engaged in service-learning activities report that students' leadership skills have improved following

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participation in service-learning (Ejiwale, 2013). Additionally, service-learning is an effective practice to foster the development of leadership skills in adolescents. Adolescents who participated in service-learning experiences reported above average leadership skills. Interestingly, participants who completed a service-learning activity that required direct contact with service recipients perceived their leadership skills higher than service-learning participants who did not have direct contact with service recipients (Locke et al., 2007).

Service-learning is positively associated with a variety of diversity outcomes, such as increasing students' awareness of diversity (Simons & Cleary, 2006), multicultural competence (Einfeld & Collins, 2008), and global perspective-taking (Engberg & Fox, 2011). Service-learning is also associated with civic-engagement-related outcomes, such as increasing students' commitments to socially responsible work (Jones & Abes, 2004) and feelings of civic and social responsibility (Engberg & Fox, 2011). Furthermore, a longitudinal study consisting of first-year students at 17 four-year colleges located in 11 different states showed that service-learning is associated with positive effects on student learning, such as openness to diversity and socially responsible leadership (Kilgo et al., 2015).

In addition to the positive impact service-learning has on students, service-learning may also benefit the course instructor. Service-learning experiences may instill a sense of engagement and purpose in instructors (Gibson et al., 2011). Additionally, these opportunities may not only foster more meaningful relationships with students but allow for meaningful partnerships with the community based on the knowledge obtained during service-learning.

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Current Study

It is hypothesized that students in both lower and upper division psychology courses will benefit from service-learning experiences; however, students in upper division courses will show a greater benefit than students in lower division courses. Students enrolled in upper division courses will have had greater exposure to the field of psychology than students enrolled in lower division psychology courses. Furthermore, students in upper division courses may be more likely to continue in the field after graduation. Greater exposure to the field of psychology may result in upper division students obtaining greater benefits from service-learning activities than students enrolled in lower division psychology courses.

Methods

Institution Profile

Farmingdale State College (FSC) is a four-year public institution located in Long Island, New York. FSC is dedicated to student success and is the largest applied science and technology college in the State University of New York (SUNY) system. FSC has over 10,000 undergraduate students, and offers 41 undergraduate degree programs. FSC offers a 20:1 student to faculty ratio, and the average class size consists of 25 students. FSC has a freshmen retention rate of 83%, and a six-year graduation rate of 55%.

Participants

54 FSC students (M = 22.24 years, SD = 4.83) participated in the current study. 68.5% of students identified as female, and 24.1% of students identified as Hispanic. Additionally, 57.4% of students identified as White, 14.8% of students identified as African

American, 13.0% of students identified as Other, 3.7% of students identified as Asian, 1.9% of students identified as American Indian, 1.9% of students identified as Pacific Islander, and 7.4% of students did not report their race. Students were enrolled in Introductory Psychology ($N = 15$), Child Development ($N = 6$), and Atypical Development ($N = 33$). Students enrolled in Introductory Psychology and Child Development ($N = 21$) composed the lower division course group as these courses satisfy the General Education requirement and are typically taken in the first or second year. Students enrolled in Atypical Development ($N = 33$) comprised the upper division course group as this course requires Introductory Psychology and Child Development as prerequisites and is a 300 level Psychology elective. Groups did not differ in terms of age ($t = 1.04$, $p = .305$), sex ($\chi^2 = 4.87$, $p = .082$), or race ($\chi^2 = 11.36$, $p = .078$). The current study was approved by the Farmingdale State College Institutional Review Board.

Community Partner

Commonpoint Queens is a social services organization that meets the diverse and evolving needs of individuals in Queens and Nassau, New York. Commonpoint Queens is a place where people of all ages and backgrounds come together to find support, access opportunities, and build connections to community throughout their lives. Guided by the Jewish values of service and justice, Commonpoint Queens was founded to support the local Jewish community, which it continues to do today. Over the past 60 years, Commonpoint Queens has extended its reach, and currently provides childhood programs, summer camp, senior services, mental health resources, support during crisis, wellness, and everything in between at over 50 sites.

Service-Learning Project Description

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Students from Introductory Psychology, Child Development, and Atypical Development courses participated in a service-learning project at the Sam Field Center of Commonpoint Queens located in Little Neck, NY. Students were paired with youths with various developmental disabilities (DD). Youths with DD presented with mild to severe impairments and ranged from six- to 21-years-of-age. College students and students with DD were instructed to work together to create a mural. College students and students with DD were also given "free time" to participate in semi-structured activities of their choosing. The student learning objectives of the service-learning experience were to: 1). Apply course concepts to everyday life; 2). Demonstrate an understanding of various developmental disabilities; 3). Examine the unique needs of individuals with disabilities.

The service-learning project met the "4 Rs" of service-learning: respect, reciprocity, relevance, and reflection. Prior to the service-learning experience, the instructor had a series of conversations with the community partner to shed light on a community need. The instructor and community partner agreed on a beautification project. College students approached the students with DD with respect. Further, college students were provided with the opportunity to interact with students with DD after completing a unit on developmental disorders in each class. College students gained an understanding of the challenges students with DD often face. Lastly, following the service-learning project, students wrote reflection papers. Time was also allotted in class to allow the college students to debrief, which provided more meaning and context to the service-learning exercise.

Data Collection and Analysis

After completing the service-learning project, college students completed a questionnaire assessing their experiences on a five-point Likert scale. Unfortunately, a similar questionnaire could not be used to assess the experience of students with DD as not all students had sufficient cognitive and/or verbal abilities. A research assistant administered the questionnaire and deidentified college student responses. IBM Statistical Package for Social Sciences (SPSS) version 20.0.0.1 was employed for data analysis. Since Likert scale ratings consist of ordinal data, nonparametric statistics were employed (Nanna & Sawilowsky, 1998). Medians and ranges were assessed for the overall sample ($N = 54$) as well as the lower ($N = 21$) and upper ($N = 33$) division course groups. *Mann-Whitney U* tests were employed to assess whether lower and upper division course groups differed in their service-learning experiences.

Results

Service-Learning Overall Results

Table 1 summarizes the overall service-learning results. Students indicated that the service-learning project was related to course content (*Mdn* = 5.00, *r* = 4.00). Additionally, students reported that the service-learning project enhanced their understanding of individuals with developmental disabilities (*Mdn* = 5.00, *r* = 2.00). Students also stated that the service-learning project increased student engagement (*Mdn* = 5.00, *r* = 2.00). Moreover, students indicated that the service-learning project helped them understand the relevance of the course to their everyday life (*Mdn* = 5.00, *r* = 2.00). Students also reported that the service-learning project had a positive impact on their future academic and career choices (*Mdn* = 5.00, *r* = 4.00). Lastly, students stated

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they had an overall positive experience participating in the service-learning project (*Mdn* = 5.00, *r* = 2.00).

INSERT TABLE 1 HERE.

A Comparison of Lower and Upper Division Courses

 Table 2 summarizes the results comparing the service-learning experiences of lower and upper division courses participants. A Mann-Whitney test indicated that the service-learning project was related to course concepts greater for upper division course students (*Mdn* = 5) than lower division course students (*Mdn* = 5), *U* = 232.50, *p* = .011, *r* = 4.00. Additionally, a Mann-Whitney test indicated that the service-learning project helped them apply the course's subject material to their everyday life greater for upper division course students (*Mdn* = 5) than lower division course students (*Mdn* = 5), *U* = 218.50, *p* = .003, *r* = 4.00. In contrast, upper division course students (*Mdn* = 5) and lower division course students (*Mdn* = 5) did not significantly differ in how the service-learning project assisted in their understanding of developmental disabilities (*U* = 338.50, *p* = .808, *r* = 2.00). Additionally, upper division course students (*Mdn* = 5) and lower division course students (*Mdn* = 5) did not significantly differ in how the service-learning project facilitated student engagement (*U* = 310.50, *p* = .377, *r* = 2.00). Upper division course students (*Mdn* = 5) and lower division course students (*Mdn* = 5) also did not significantly differ in how the service-learning project affected future academic and career choices (*U* = 297.00, *p* = .300, *r* = 2.00). Lastly, upper division course students (*Mdn* = 5) and lower division course students (*Mdn* = 5) did not significantly differ in their overall service-learning experience (*U* = 300.50, *p* = .244, *r* = 2.00).

INSERT TABLE 2 HERE.

Discussion

Students in both lower and upper division courses reported benefits as a result of participating in a service-learning activity. Interestingly, students in an upper division psychology course reported that the service-learning activity was related to course concepts to a greater extent than lower division course students. Furthermore, individuals in an upper division psychology course indicated that the service-learning experience helped them apply the course's subject material to their everyday lives to a greater extent than individuals enrolled in lower division psychology courses. The vast majority of the service-learning literature has focused on the benefits of service-learning to early career students. For instance, participation in service-learning activities is associated with student retention (Gallini & Moely, 2003). The current study illustrates how students in upper division courses also benefit from service-learning activities. This suggests that service-learning activities should be embedded throughout the curriculum to achieve optimal benefits.

It is important to note that the current study has limitations. The overall sample size is relatively small. It is possible that a larger sample may yield different results. Despite the limitation in sample size, the current sample was fairly diverse and was similar in composition to the Metropolitan New York area. Given the significant findings in the relatively small diverse sample, it is expected that they would be replicated in a larger sample.

In conclusion, the current study illustrates that incorporating service-learning activities in both lower and upper division psychology courses benefits students. Upper

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division course participants may receive even more meaningful benefits than lower division course participants. The results of the current study lead to the recommendation to incorporate service-learning activities across the curriculum in both lower and upper division courses in order to maximize the opportunity for optimal student learning outcomes.

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Item	Mdn	r
Course Content	5.00	4.00
Understanding of Individuals with Disabilities	5.00	2.00
Student Engagement	5.00	2.00
Application to Everyday Life	5.00	2.00
Future Academic and Career Choices	5.00	4.00
Overall Experience	5.00	2.00

Table 1. Overall service-learning results.

Item	Lower Division Couse		Upper Division Course		U	Z	p
	Mdn	r	Mdn	r			
Course Content	5.00	4.00	5.00	1.00	232.50	-2.53	.011**
Understanding of Individuals with Disabilities	5.00	2.00	5.00	2.00	338.50	-.24	0.808
Student Engagement	5.00	2.00	5.00	2.00	310.50	-.88	0.377
Application to Everyday Life	5.00	2.00	5.00	2.00	218.50	-2.96	.003**
Future Academic and Career Choices	5.00	4.00	5.00	2.00	297.00	-1.04	0.300
Overall Experience	5.00	2.00	5.00	2.00	300.50	-1.17	0.244

Table 2. Comparison of service-learning benefits for students enrolled in lower and upper division courses.