# Impact of Service Learning on Personal, Social, and Academic Development of Community Nutrition Students

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## ABSTRACT

Service learning connects theoretical knowledge to community settings. Reflective journals were used to document student service-learning experiences in a Community Nutrition course component. Reflective journal data obtained from students (n=137) during different semesters were analyzed qualitatively. The service-learning partners included Nutrition Education, Food Provision, and Local Food sites. Positive impacts were noted on personal, social, and academic development of students for all sites. Service-learning assignments can impart transferrable skills and enhance student development.

Keywords: pedagogy, community nutrition, experiential learning, student development

## SERVICE LEARNING

Service learning (SL) is a pedagogical framework that focuses on learning by doing, often used in college-level Community Nutrition courses (Wadsworth et al., 2012; Gray et al., 2017). SL is an immersive practice that integrates student volunteering into an experiential learning dynamic alongside an accredited academic program. Given its evidence-based success in education (Eyler, 2002), SL is part of higher education best practices in many various countries and has been instrumental in redesigning higher education framework.

SL is effectively used as an important of transferring evidence-based method nutrition knowledge in nutrition, nursing, pharmacy, and public health students (Brown et al., 2007; Trail Ross, 2012). SL improves students' personal, social, and academic outcomes (Gregorio et al., 2008; Lim, 2018). SL contributes to personal development by improving soft skills such as communication leadership skills. skills, and cultural competence (Gilboy, 2009; Pierce et al., 2012;

Mann & Schroeder, 2019). Research also suggests that SL fosters a mutual positive relationship between students and the community. The impact of SL on community includes social, personal, and economic benefits as well as role-modeling, selfefficacy, and self-sustaining capacity (Chupp & Joseph, 2010; James & Logan, 2016).

One of the most important outcomes of SL includes improved education experience. Eyler et al. (2001) summarized the effects of SL from published studies and reported its positive effects on students, faculty, colleges and universities, and communities. The authors reported positive effect on personal development such as moral development, selfefficacy, leadership, and communication skills; social development such as cultural and racial understanding, social responsibility, citizenship skills, and commitment to community service and volunteer service; and impact on academic learning including critical thinking, problem analysis, and professional career development skills. Ash and Clayton (2004) suggested that SL improves academic performance of the students by enriching

learning experience while serving the community through civic engagement. In nutrition, SL empowers communities, builds a strong relationship with universities and communities, encourages better food systems and nutrition education, and opens new avenues of research and service for future nutrition professionals (Falter et al., 2011; Wadsworth et al., 2012; Heiss et al., 2012; Christaldi & Bodzio, 2015).

Conflicts are not uncommon in SL. assignments Likewise, SL are also accompanied by reports of conflict that can range anywhere from issues in meeting time to arguments with SL supervisors. Reporting challenges via reflective journals can provide conflict mediation opportunities (Goff et al., 2020). According to Mills (2012), the four most common reasons of conflict can be (a) student emphasis on hours vs. SL Partner's emphasis on commitment, (b) student emphasis on learning vs. SL Partner's emphasis on efficiency, (c) student emphasis on flexibility vs. SL Partner's emphasis on dependability, and (d) student emphasis on idealism vs. SL Partner's emphasis on realism.

The academic knowledge gained by students in their classrooms is applied into the community system in a simpler vet scientific manner (Buckner et al., 2010; Zinger & Sinclair, 2010). The bridging gap between SL and academic curriculum is reflection (Culhane et al., 2018). Reflection helps students achieve a better sense of civic engagement while simultaneously improving critical thinking and writing skills. Graham Gibb proposed the Gibb's reflective cycle (1988), which includes a six-stage framework with set of questions guiding the learning experience of the student (Gibbs, 1988). The six stages of this model include (1) description of the situation (who, what, when, where) in detail, (2) feelings experienced during the whole experience, (3) evaluation of the learning experience, (4) analysis of the learning experience, (5) conclusions, and (6) action plan. See Figure 1 for the version of the cycle modified and adapted for this study. Gibb's reflective cycle has been used time and

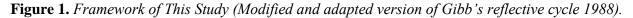
again by psychology researchers emphasizing prosperity of pedagogy (Husebø et al., 2015).

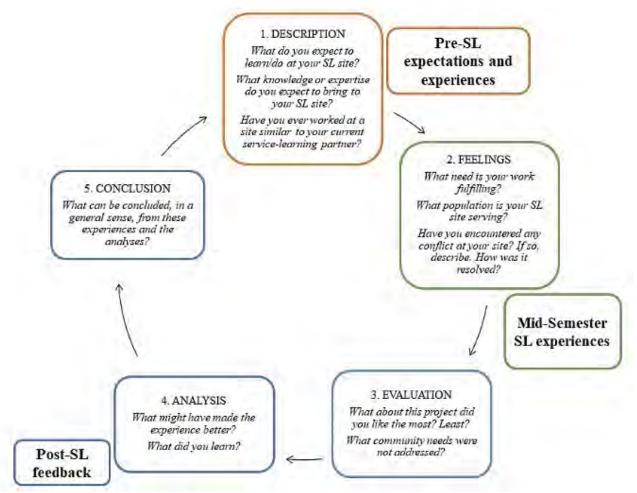
This study assesses the impact of SL assignments on personal, social, and academic development of students in a southern university in the United States. Students enrolled in a Community Nutrition course were assigned SL partners and completed three reflective journals. We used Gibb's reflective cycle (1988) as the guiding theory to assess the impact of SL on personal, social, and academic development on students for analysis of the reflective journals. The framework of this study guided by Gibb's reflective cycle includes Pre-SL expectations and experiences (description), Mid-Semester SL experiences (feelings), and Post-SL feedback (evaluation, analysis, conclusion, and action plan).

#### METHODS

#### **Participants and Setting**

This study was set in a large public university in the southern United States with an average 5-year enrollment of 23,617 (Office of Institutional Research, Effectiveness, and Planning, 2020). Participants included undergraduate students from Spring 2017 (n=63), Spring 2018 (n=44), Fall 2018 (n=32), and Spring 2019 (n=32) enrolled in Community Nutrition for nutrition majors, taught by the same professor each iteration. The mandatory SL course component was established in 2016 to give students a community-classroom connection. Courses lasted 15 weeks; Spring 2017 met once per week and the remaining classes met twice per week. Students ranked SL sites where they wished to work, and sites were assigned accordingly. Reflective journals were pointbearing, which counted toward the final grade. Students were allowed to complete journal entries on their own time. Only students who completed and submitted all three reflective journals were included in this analysis, where 80.95% for Spring 2016-17, 72.72% for Spring 2017 - 18, 75% for Fall 2018 - 19, and 50% for





Spring 2018-19 of the enrolled students were included, making an average response rate of 71.93% (n=137). All reflect-ive journals were de-identified after grading and before analysis to maintain anonymity. Data from Spring 2019-20 were omitted from analysis due to changes in course structure during the COVID-19 crisis. The University of Institutional Mississippi Review Board approved this study. Specific semester years are not included in text to ensure privacy.

#### **Service Learning Site and Activities**

Students were assigned to SL sites focused on Nutrition Education through schools or community centers, Food Provisions through food pantries, or the sites focused on providing access to Local Food via

community markets or agricultural sites. For all the semesters combined, 22 SL sites were categorized into four broad groups (Table 1). Sites differed from each other in the population they served and services offered to the community. Not all sites were included each semester due to fluctuating community needs. Students were given prompts for each of three reflective journals: before, during, and after the SL experience. Reflective journal prompts are shown in Table 2. Reflection questions were developed to spark intentional reflection on crucial elements of the experience, which is one of the key components of service learning. Reflection is a critical component to service learning (Duncan & Kopperud, 2008).

SL Category	SL Sites*	Target Population	Semester**
Nutrition	Campus Wellness Program	University students, faculty, and staff	A, B
Education (NE)	Community Center	Food insecure individuals	В
(112)	Community Center	Adolescent recovery center	С
	Community Center	Children and adults	A, B
	Community Center	Adults with intellectual and developmental disabilities. Elderly adults.	B, C
	Community Tutoring Center	Children	А
	Community Health Fair	Adults	D
	Early Childhood Development	Preschoolers	D
	Elementary/Middle Schools	K-12 children	C, D
	Middle/High School Health Fair	Middle and high school students	D
	School Nutrition Education Program	Children of all ages; primarily belonging to low-income population or minorities	Α
	School Nutrition Education Program	Pre-K through 12	A, B, C
	School Nutrition Education Program	Children ranging from ages 0-12th grade	А
Food Provisions	Food Pantry	University students experiencing food insecurity	A, B, D
(FP)	Food Pantry	Food insecure individuals	A, B, C
	Food Pantry	Food insecure individuals	B, C
	Food Pantry	Food insecure individuals	B, C
	Food Pantry	K-12	A, B, C, D
	Youth Organization	Food insecure individuals	Α, Β
Local	Agricultural Site	Adults	А
Foods (LF)	Community Market	Any	A, B, C, D
()	Community Center	Food insecure individuals	A, B, C

**Table 1.** Service-Learning Sites Assigned to Community Nutrition Students During DifferentSemesters and Their Target Population

\*Site names are blinded to protect SL providers.

\*\*Semesters: A: Spring 2016-17; B: Spring 2017-18; C: Fall 2018-19; D: Spring 2018-19

Journal	Prompts
Before beginning to work	What do you expect to learn/do at your SL site?
at the SL site	What knowledge or expertise do you expect to bring to your SL site?
	Have you ever worked at a site similar to your current service- learning partner?
Halfway through working	Have you encountered any conflict at your site? If so, describe.
at the SL site	How was it resolved?
	What population is your SL site serving?
	What need is your work fulfilling?
At the end of working at	What might have made the experience better?
the SL site	What community needs were not addressed?
	What about this project did you like the most? Least?
	What did you learn?

**Table 2.** Question Prompts to Guide Reflections of Community Nutrition Students for Servicelearning Assignments

#### **Data Analysis**

The reflective journals from four semesters were sorted and blinded. Constant comparative analysis was used (Bogdan & Biklen, 1998; Glaser & Strauss, 1967). Initially, two trained graduate assistants (researchers) independently identified the themes from the journals. For the second stage of coding, the two researchers reanalyzed the themes based on mutual results from the first stage. For the third stage, the two researchers agreed upon a final set of themes and codes that were refined and finalized by the principal investigator into a codebook (Table 2). Each theme was checked for the frequency of their occurrence in the SL sites and results were displayed as percentage. Cohen's Kappa was used to determine inter-rater reliability, and the calculated value was 0.84 which is a high level of agreement.

#### RESULTS

#### **Pre-SL Expectations and Experiences** *Relevant Experience*

A common observation from the reflective journals was students (N=65, 47.44%) intended to apply their knowledge of nutrition obtained over years of formal education. Some of the students (N=57, 41.61%) had previous similar experiences that were personal, professional, or volunteer related.

#### **Expectations**

Expectations seemed to depend upon students' prior knowledge or experience. Students expressed their enthusiasm for being given the opportunity to learn first-hand and looked forward to helping with activities carried out by the sites. For example, one student enjoyed, "helping the buyers at the market know what foods to buy and how they can use them to prepare meals and also to increase the donations we collect." The major expectation reported by the students assigned at Nutrition Education sites was to educate the population at the sites. Students were especially excited about engaging with the community and exchanging knowledge, information, and experiences. A student from the Community Market group noted, "I expect that from working at this service-learning site, I will learn a lot about the experiences farmers and growers have with growing, harvesting, and selling their food."

## Mid-Semester SL Experience Population and Need

Students were assigned a variety of tasks and reported mixed experiences about the sites to which they were assigned. All 22 students assigned at the Nutrition Education sites served children/adolescent populations. Students contributed to cooking, nutrition education, and making the best use of minimal resources. Students assigned to the Food Pantries stated that they "helped improve food insecurity, put an end to student hunger, and improve overall health of the community." Their work was "fulfilling the need of people that are in most need of shelf-stable foods, frozen foods, etc." At agricultural sites, the students helped "by working with the crops, both with the planting and the maintenance aspects." Students assigned to the Community Center helped to educate, connect, and empower this community. Students gave their special input in advertising for the Community Market "...to college students using social media and posters."

## Reports of Conflict

Sixty-four percent of students from all the SL sites reported to have encountered some type of conflict. These conflicts were often communication related (8.2%), timing conflicts (20.2%), lack of community interaction or organization at the SL site (12.4%), and other (23.3%). Timing conflict was the major issue. One student said, "Most of the time the kids do not listen and if one kid does not do the activities there is always another kid that falls right behind them." In addition to learning experiences, course grades were a priority for the students, and they reported conflicts in getting hours in certain circumstances. There were "problems finding times that work for us to get our hours in. [Agricultural Site] is thirty minutes outside of [town] which is certainly doable, but it is also not convenient." Out of the 10 students assigned at a Food Provision site, six of them stated that they experienced lack of organization. However, by the end of the SL assignment, many conflicts were either resolved or provided a learning experience.

## Post SL Feedback

## Liked Most About the Project

Students remarked that they most liked the about their projects community interaction, output, or impact of the work they did, learning opportunities, and development of material (see Appendix). Thirteen of the 22 students assigned at Nutrition Education sites, and 12 of 20 assigned to Local Foods enjoyed the community interaction the most. One Nutrition Education student stated, "Getting to interact with the children of the community was my favorite part about working the health fair." Although students had encountered small conflicts at the sites, they overall had a fulfilling experience.

## Liked Least About the Project

The primary components that students disliked included the need for time at the sites, long commutes, lack of communication from site director, and lack of community interaction. At all locations, some students (n=25) stated that their learning experience might have been better if there were more time. A student noted, "I did not like that I had to rush to get all my service hours completed on time." In Nutrition Education, three out of 13 students disliked the commute and lack of communication. One student wrote, "It was a bit of a conflict having to drive an hour away to help."

#### Would Have Made the Experience Better

Criticisms of what might have improved the experience varied widely. For example, 16 of the 22 students at Nutrition Education sites said better organization and more work opportunities would have helped. At Food Provision sites, students noted that visiting the site beforehand would have helped to inform how they operated the food drive. One student serving at a Nutrition Education site stated, "I believe that more hands-on activities and classes would have made the experience better for both the volunteers and the individuals in the community." Ten of the 20 students from the Local Food group stated their experience may have been better with "more time and work opportunities."

#### Learned

Personal Development. Depending upon the SL sites and assignments, students benefitted by understanding the time and effort that goes into community outreach activities and felt rewarded in giving back to the community. Students reported personal in development terms of awareness, connection. communication. and civic engagement (Table 3). As one student noted, "I learned cool bits of information from all of the farmers at the market and how they each have their own process. I was fortunate enough to get to learn about some of their lives and about their farms."

**Professional Development.** In their reflective journals, students reported professional growth with project development, hands-on activities, science communication, teamwork, and subject expertise. A student

writes, "...we got the validation that our innovations were viable goals." One student commented on learning to teach to the public: "It was interesting to figure out how to convey the information in simple terms to people that had never had nutrition education before and had no idea what vitamins were in what foods or how to read a nutrition label."

Motivation. Many of the students relayed comments about how their servicelearning experience helped motivate them in different aspects of life. One student said, "I learned the importance of getting involved in the community and how to spend my time more wisely, and if I have the chance to give back, do it." Another student stated, "We should be more involved in the community, helping with food drives, and spread the word more and get more people involved."

		STU	DENTS		
PERSONA	L OUTCOMES	S	IES	ACADEMIC OUTCOMES	
Personal efficacy,	Interpersonal development,	Reducing stereotypes	Social responsibility	Commitment to service	Academic learning,
personal identity, moral development	ability to work well with others, leadership skills, communication		and citizenship skills		demonstrated complexity of understanding, problem
	skills				analysis, critical thinking, and cognitive development
"One of the	"How to prepare	"Food	"I learned to	"We should be	"A lot of
biggest things	food for a large	insecurity is	appreciate what	more involved	individuals do not
that I learned did not really	group of people with a limited	much more prevalent than	I have because not everyone	in the community and	know about the importance of
have anything	budget; how to	would be	else has access	helping with	healthy foods and
to do with nutrition. I	buy large quantities of food	expected among college	to food, clothing, or	food drives. Spread the	how to better their eating habits.
have never worked in a	for a large group of people; how to	students."	other necessities. I	word more and get more	Individuals also lack resources of
hands-on	communicate with	"Friendship,	also learned that	people	finding new ways

**Table 3.** Personal, Social, and Academic Development of Community Nutrition Students Through Service-learning.

manner with people my own	my group members and I	in all senses, goes beyond	when donating food, it is	involved."	to actually cook healthier too."
age, or close to, that are suffering from addiction and going through the recovery process."	learned more on how to be efficient." "I learned to be a little more patient and positive. I also learned better communication	similarities and shared interests. It is about connecting with people and forming relationships that help each	important to donate nutrient dense foods instead of whatever is left in the pantry." "I learned that there is a lot of	"I also learned that it is crucial for students to get out and serve the community because people our age are needed more	"There are many families who are food insecure and are not financially stable. This project opened my eyes on how poorly people eat
"I learned to appreciate what I have because	skills." "Additionally, I gained some time	other grow." "When	joy in giving back and helping others. I also learned	than I would have ever thought, and we can	and helped me learn how to make balanced meals for people."
not everyone else has access to food, clothing, or other	management, planning, and some degree of leadership skills."	working in the dietetics field, you cannot judge any	how grateful and appreciative I am to have all of the food I need."	help the community more than we think we can."	"I learned that the majority of people who haven't had NHM* courses
necessities. I also learned that when donating food, it is important	"I was also able to work on my professional communication skills by working	community or population for their nutrition lifestyle because often	"I learned how much time and hard work goes into non-profit	"The feeling of being able to give back to the community in any way is	and aren't a nutrition major like myself, lack basic nutrition knowledge. I also
to donate nutrient dense foods instead of whatever is left in the	with my service- learning partner and seven other people in the group."	times, it is not that they don't want to be healthy, but usually that	organizations."	an awesome feeling."	learned how privileged I am and the people around me, and have started
pantry."		they do not have the resources to live a healthy lifestyle."			trying to not take the little things for granted. i.e. grocery stores etc."

Categories adapted from: Eyler et al. (2001) \*Nutrition and Hospitality Management

#### DISCUSSION

#### Personal, Social and Academic Development

The current research demonstrates positive effects of SL on students' personal, social, and learning outcomes (Table 3). This study, much like Sanders et al. (2016), utilized structured reflection to promote personal growth. Self-reflection, a central component of service learning, encourages students to consider their group interactions actively to understand how they have been influenced by experiences at a personal level (Eyler, 2002). Students also benefit personally from realworld experiences by gaining self-assurance, new insights into community operations, and roles of responsible citizens (Lawford & Ramey, 2017; Parker et al., 2009).

Simons and Cleary (2006) reported similar findings also demonstrated here. Respondents stated positive changes in multiculturalism and political awareness, public self-efficacy, and community involvement scores from the beginning to the end of the semester. In addition, the participants' academic learning, personal and interpersonal development, and community involvement were identified as the key advantages from participating in SL. Much like Simons and Cleary (2006), the reflections from the current studies also showed positive change in personal development within SL. Another study by Brown et al. (2007) demonstrated a positive shift in the perception of the students' awareness and comprehension of larger community concerns. Students here reflected that SL changed their perceptions of the community, and many noted that the experience expanded their knowledge of needs within the community.

SL provides students with academic opportunities that help connect classrooms to communities. It provides opportunities for students to connect to real-world interdisciplinary situations, providing insight/ appreciation into their future career (Waterman, 1997; Shapiro 2002). Reflective writing about their SL experience helps promote significant improvements in writing skills. grades/scores, critical thinking, leadership, and self-confidence in students (Astin et al., 2000). Mann and Schroeder (2019) noted in the same group of students through survey data, that SL in Community Nutrition helps students to understand the complexity of the field of community nutrition and to implement their theoretical knowledge in the field, thus bridging the gap between classroom learning and community service.

Pedagogical research supports that when students develop emotional connection and sense of relationship with the communities, they are better satisfied at SL assignments (Darby et al., 2013). In this research too, the students assigned at Nutrition Education, Food Provisions, and the Local Food sites displayed a sense of connection with their community. In their post-reflective journals, many students (n=29) expressed aspirations to work longer in their community.

#### Student Dissatisfaction and Other Conflicts

The reports of dissatisfaction are in line with Eyler & Giles (1999), and Rosing et al. (2010). Reflection on conflicts can guide the future assignments of students and help

improve future course offerings. Mills (2012) studied the four furies to evaluate the disconnect between students, educators, and agencies. Each collaborative partnership between the community partner and the college student should serve for both parties' mutual benefit. The primary conflict in student reflective journals was time and scheduling. It seems that both parties (SL partners and students) have busy work/life schedules, and this is a main determinant to how well the partnership works. Vernon and Ward (1999) found that service-learners have issues with scheduling (due to the erratic university calendar and typically overscheduled student), student commitment (reliability of student to show up and immaturity), and providing training without an incentive/investment for agencies/stakeholders (low student commitment or resentment to SL requirements). One student stated, "It has been difficult, sometimes, to meet because of conflicting classes and work schedules." Several others had similar sentiments. These tensions should not be seen as failures in SL, rather a challenge for the field of SL to be more flexible, responsible, and adaptive to conquer uncertainty. As these tensions are acknowledged, they must be evaluated as to not negatively affect the education and growth of students.

#### CONCLUSION

Unlike many other SL studies that solely use student surveys, this study used reflective journals (before, during, and after), providing a deeper insight into student feelings about their experiences. SL benefits social. personal. and academic the development of the students, as well as providing a sense of civic engagement. Reflective journaling brought students' experiences to life, showing how impactful SL can be on increasing student motivation to volunteer within the community. Employing SL in a classroom setting helps students acquire first-hand experience into the workflow of various community nutrition programs, provides insight into potential career fields, and encourages use of academic knowledge while assisting the community. Conflicts related to scheduling, commitment, communications, opportunities, and organization often occur in SL assignments. These conflicts can be avoided by making the assignments more structured for students as well as partners. Both the partners and students should be well informed about the expectations of the SL assignment. While all three types of SL sites (Nutrition Education, Food Provisions, and Local Foods) provided unique learning opportunities, the students at Nutrition Education and Local Foods sites especially liked community interaction, which lacked in Food Provision sites. Overall, SL can be an impactful learning mechanism for university level students.

## LIMITATIONS

The current study lacks SL partner perceptions, which would provide a valuable perspective on the experience. SL partners provide feedback throughout the course, but those data are not reported here. The number of students assigned under each SL category was unevenly distributed because of the limitations in the number of SL sites under each category. Both fall and spring courses were included, but service-learning experiences might have differed between semesters. Results reported here depend upon data from one university, and as such may not be generalizable to all universities and student groups.

## **Conflict-Of-Interest Statement**

There are no known conflicts to report.

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#### Appendix

## (Click here to return to text.)

T= Total number of students in that semester

NE = Number of students assigned at Nutrition Education sites in given semester

FP = Number of students assigned at Food Provisions sites in given semester

LF = Number of students assigned at Local Foods sites in given semester

n = number of students in each category in given semester (some students' statements fall in more than one theme)

Semester		201	ring 6-17 %)			201	ring 7-18 %)			201	all 8-19 %)		Spring 2018-19 (n, %)				
Total number of students in that semester		5	1			3	2			2	28		26				
SL* sites	Т	NE	FP	LF	Т	NE	FP	LF	Т	NE	FP	LF	Т	NE	FP	LF	
Expectation																	
Learn/Cook/Meal Prep	24, 47. 06	10, 45. 46	3, 30	11, 21. 57	21, 65. 63	8, 25	7, 21. 88	6, 18. 75	12. 42. 86	5, 50	4, 44. 44	1, 20	10, 38. 46	9, 52. 94	1, 20	0, 0	
Educate/Community Interaction	38, 54. 90	15, 68. 19	4, 40	9, 17. 64	10, 31. 26	5, 15. 63	2, 6.2 5	3, 9.3 8	8, 28. 57	4, 40	2, 22, 22	2, 40	22. 80. 77	14, 82. 35	3, 60	4, 10 0	
Developing educational material	12, 23. 53	2, 9.0 9	1, 10	9, 17. 65	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	
Organizational tasks	6, 11. 76	0, 0	5, 50	1, 1.9 6	2, 6.2 5	0, 0	2, 6.2 5	0, 0	5, 17. 86	1, 10	2, 22. 22	2, 40	6, 23. 08	3, 17. 65	3, 60	0, 0	
Other	4, 7.8 4	2, 9.0 9	0, 0	2, 3.9 2	1, 3.1 3	1, 3.1 3	0, 0	0, 0	1, 3.5 7	0, 0	1, 11. 11	0, 0	2, 7.6 9	1, 5.8 8	1, 20	0, 0	
Previous similar experies	nce																
Volunteer	13, 25. 49	9, 40. 91	3, 30	1, 1.9 6	3, 9.3 8	2, 6.2 5	1, 3.1 3	0, 0	6, 21. 43	1, 10	4, 44. 44	1, 20	8, 30. 77	5, 29. 41	3, 60	0, 0	
Work	9, 17. 65	1, 4.5 5	3, 30	5, 9.8 0	5, 15. 63	2, 6.2 5	2, 6.2 5	1, 3.1 3	6, 21. 43	4, 40	1, 11. 11	0, 0	1, 3.8 5	1, 5.8 8	0, 0	1, 25	
Personal	2, 3.9 2	2, 9.0 9	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	2, 7.1 4	2, 7.1 4	0, 0	0, 0	2, 7.6 9	2, 11. 76	0, 0	0, 0	
Worked at a similar site	before	e															
Yes	22, 43. 14	11, 50	6, 60	6, 11. 76	8, 25	4, 12. 50	3, 9.3 8	1, 3.1 3	10, 35. 71	8, 80	1, 11. 11	1, 20	11, 42. 31	7, 41. 18	3, 60	0, 0	
No	27, 52. 94	11, 50	3, 30	13, 25. 49	23, 71. 88	9, 28. 13	7, 21. 88	7, 21. 88	12, 42. 86	2, 20	6, 66. 67	4, 80	14, 53. 85	9, 52. 94	2, 40	3, 75	
No information provided	1, 1.9 6	0, 0	1, 10	0, 0	1, 3.1 3	0, 0	0, 0	1, 3.1 3	1, 3.5 7	0, 0	1, 11. 11	0, 0	1, 3.8 5	1, 5.8 8	0, 0	0, 0	

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Previous learning/exper	tise															
Nutrition Knowledge	31,	10,	9,	12,	17,	8,	6,	3.	7,	1,	3,	3,	10,	7,	3,	1,
i (uurroon i ino () i ougo	60.	45.	90	23.	53.	25	18.	3, 9.3	25	10	33.	60	38.	41.	60	25
	78	45		53	13	_	75	8	-		33		46	18		_
Organizational/Commu	3,	2,	0,	1,	6,	2,	2,	2,	4,	0,	1,	3,	4,	1,	2,	1,
nicational/Team skills	5.8	9.0	0	1.9	18.	6.2	6.2	6.2	14.	0	11.	60	15.	5.8	40	25
	8	9		6	75	5	5	5	29		11		38	8		
Work/Volunteer	17,	10,	2,	5,	3,	1,	1,	1,	8,	5,	3,	0,0	8,	7,	0,	1,
experience	33.	45.	20	9.8	9.3	3.1	3.1	3.1	28.	50	33.	-	30.	41.	0	25
x	33	45		0	8	3	3	3	57		33		77	18		
Soft/Technical skills	4,	2,	1,	1,	3,	1,	1,	1,	0,	0,	0,	0, 0	4,	3,	1,	0,
	7.8	9.0	20	1.9	9.3	3.1	3.1	3.1	0	0	0	-	15.	17.	20	0
	4	9		6	8	3	3	3					38	65		
Other	2,	1,	0,	1,	5,	0,	2,	3,	1,	1,	0,	0, 0	1,	0,	0,	0,
	3.9	4.5	0	1.9	15.	0	6.2	9.3	3.5	10	0	-	3.8	0	0	0
	2	5		6	63		5	8	7				5			
Any conflict/feedback																
Communication issues	6,	3,	2,	1,	3,	2,	1,	0,	6,	3,	1,	2,	1,	1,	0,	0,
with SLP**/Group at	11.	13.	20	1.9	9.3	6.2	3.1	0	21.	30	11.	40	3.8	5.8	0	0
SL Site/Unable to meet	76	64		6	8	5	3		43		11		5	8		
SLP																
Lack of volunteers	9,	5,	0,	4,	8,	4,	2,	2,	7,	4,	1,	2,	3,	2,	0,	1,
opportunities/Resources	17.	22.	0	7.8	25.	12.	6.2	6.2	25	40	11.	40	11.	11.	0	25
/Time	65	73		4	01	51	5	5			11		54	76		
Lack of	2,	1,	0,	1,	1,	1,	0,	0,	5,	2,	2,	1,	3,	1,	0,	0,
organization/Communit	3.9	4.5	0	1.9	3.1	3.1	0	0	17.	20	22.	20	11.	5.8	0	0
y Interaction	2	5		6	3	3			86		22		54	8		
Other	17,	4,	3,	10,	7,	1,	4,	2,	2,	0,	2,	0, 0	8,	6,	2,	0,
	33.	18.	30	19.	21.	3.1	12.	6.2	7.1	0	22.		30.	35.	40	0
	33	18		61	88	3	50	5	4		22		77	29		
Positive feedback									1		r	1		1		
Positive experience	6,	5,	1,	0,	2,	1,	0,	1,	0,	0,	0,	0, 0	4,	1,	2,	1,
	11.	22.	10	0	6.2	3.1	0	3.1	0	0	0		15.	5.8	40	25
	76	73			5	3		31					38	8		
Helpful/Positive	3,	1,	2,	0,	1,	1,	0,	0,	3,	1,	2,	0, 0	1,	1,	0,	0,
environment	5.8	4.5	20	0	3.1	3.1	0	0	10.	10	22.		3.8	5.8	0	0
	8	5			3	3			71		22		5	8		
Cooperative/Organized	0,	0,	0,	0,	2,	1,	1,	0,	1,	1,	0,	0, 0	0,	0,	0,	0,
	0	0	0	0	6.2	3.1	3.1	0	3.5	10	0		0	0	0	0
					6	3	3		7				-			
Other	2,	1,	0,	1,	0,	0,	0,	0,	0,	0,	0,	0, 0	0,	0,	0,	0,
	3.9	4.5	0	1.9	0	0	0	0	0	0	0		0	0	0	0
	2	5		6												
Made the experience bet		7	7	2	(	4	1	1	(	2	1	2	(	-	1	0
Better Communication/	16,	7,	7,	2,	6,	4,	1,	1,	6,	3,	1,	2,	6,	5,	1,	0,
Organization	31.	31.	70	3.9	18.	12.	3.1	3.1	21.	30	11.	40	23.	29.	20	0
X	37	82	0	2	75	50	3	3	43	2	11	0.0	08	41	0	0
More	0,	0,	0,	0,	1,	1,	0,	0,	2,	2,	0,	0, 0	0,	0,	0,	0,
Independence/Better	0	0	0	0	3.1	3.1	0	0	7.1	20	0		0	0	0	0
cooperation Heads up information	F	2	0	2	3	3	0	0	4	0	0	0.0	2	2	0	0
meaus up information	5, 9.8	2,	0,	3, 5.8	0, 0	0,	0, 0	0,	0,	0, 0	0, 0	0, 0	3,	3,	0,	0,
		9,0 9	05		U	0	U	0	0	U	0		11. 54	17.	0	0
More	0	9 9,	0	8	11	2	6	2	14	Δ	0	2	54	65	2	1
More community	14,	9, 40.	0, 0	5, 9.8	11, 34.	3, 9.3	6, 18.	2, 6.2	14, 50	4, 40	8, 88.	2, 40	5, 19.	1, 5.8	3, 60	1, 25
intoraction /W/1-			0	7.0		7.5		0.2	50	40		40		J.ð	00	23
interaction/Work	27.		-	Δ	20	0	75	5			00		22	0		
Opportunities	45	91	_	0	38	8	75	5	1	1	89	0.0	23	8	1	Δ
	45 9,	91 2,	0,	7,	9,	1,	2,	6,	1,	1,	0,	0, 0	7,	3,	1, 20	0,
Opportunities	45	91	_						1, 3.5 7	1, 10		0, 0			1, 20	0, 0

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	1	1		1	1		1	1		1		1				
Other	11,	3,	4,	4,	5,	4,	1,	0,	1,	0,	0,	1,	1,	1,	0,	0,
	21.	13.	40	7.8	15.	12.	3.1	0	3.5	0	0	20	3.8	5.8	0	0
	57	64		4	63	50	3		7				5	8		
Liked the most																
Community Interaction	33,	13,	5,	15,	21,	12,	5,	4,	9,	6,	2,	1,	20,	12,	4,	4,
	64.	59.	50	29.	65.	37.	15.	12.	32.	60	22.	20	76.	70.	80	10
	71	09		41	63	50	63	50	14		22		92	59		0
Output/Impact of the	3,	2,	1,	0,	3,	1,	0,	0,	13,	3,	6,	4,	12,	2,	0,	0,
work	5.8	9.0	10	0	9.3	3.1	0	0	46.	30	66.	80	7.6	11.	0	0
	8	9			8	3			43		67		9	76		
Exploring/Learning	4,	3,	0,	1,	2,	0,	1,	1,	2,	1,	1,	0, 0	1,	1,	0,	0,
	7.8	13.	0	1.9	6.2	0	3.1	3.1	7.1	10	11.	-	3.8	5.8	0	0
	4	64		6	5		3	3	4		11		5	8		
Organization/Developin	6,	2,	4,	1,	5,	1,	2,	1,	0,	0,	0,	0,0	1,	1,	0,	0,
g material	11.	9.0	40	1.9	15.	3.1	6.2	3.1	0	0	0		3.8	5.8	0	0
2	76	9		6	63	3	5	3					5	8		
Other	8,	6,	1,	1,	3,	0,	2,	1,	0,	0,	0,	0,0	2,	1,	1,	0,
	15.	27.	20	1.9	9.3	0	6.2	3.1	0	0	0	- , -	7.6	5.8	20	0
	69	27	-	6	8		5	3					9	8		-
Liked the least							-							-		
Commute/Lack of	6,	3,	1,	2,	4,	3,	1,	0,	9,	6,	2,	1,	1,	1,	0,	0,
Communication/Lack of	11.	13.	10	3.9	12.	9.3	3.1	0	32.	60	22.	20	3.8	5.8	0	0
Organization within	76	64	10	2	50	8	3	Ű	14	00	22		5	8	Ũ	Ŭ
group/SL Site	,0	01		-	50	Ŭ	5						5	0		
Broup SE Site	4.	1,	1.	2,	1.	1.	0.	0,	2,	0,	2,	0,0	3,	0,	3,	0,
Lack of community	7.8	4.5	10	3.9	3.1	3.1	0,	0,	7.1	0,	22.	0,0	11.	0	60	0
interaction	4	5	10	2	3	3	Ŭ	Ŭ	4	Ŭ	22		54	Ŭ	00	Ŭ
Lack of	6.	0,	0,	6,	4,	0.	1,	3,	2,	0,	1,	1.	1,	0,	0,	1,
time/opportunities/starte	11.	0,	0,	11.	12.	0,	3.1	9.3	7.1	0,	11.	20	3.8	0,	0,	25
d late	76	Ŭ	Ū	76	50	Ŭ	3	8	4	Ū	11	20	5	U	Ū	25
Work assignments	9,	4,	3,	2,	3,	2,	0,	1,	3,	0,	2,	1.	6,	5,	0,	1,
work assignments	17.	-, 18.	30	3.9	9.3	6.2	0,	3.1	10.	0,	22.	20	23.	29.	0,	25
	65	18	50	2	8	5	U	3	71	0	22.	20	08	41	U	25
Other	8,	6,	1,	1,	11.	4,	4,	3,	5,	2,	5,	3,	6,	6,	0.	0,
Other	15.	27.	10	1.9	34.	12.	12.	9.3	17.	40	55.	60	23.	35.	0,	0,
	69	27.	10	6	38	50	50	8	86	40	56	00	08	29	0	0
What did you learn	07	<i>21</i>		0	50	50	50	0	00	I	50		00	2)		1
Personal growth	13,	5,	2,	6,	14,	5,	3,	6,	10,	4,	4,	2,	6,	3,	2,	1,
i cisoliai giowili	25.	22.	$20^{2}$	0, 11.	43.	15.	9.3	0, 18.	35.	4,	4,	40	0, 23.	3, 17.	$\frac{2}{40}$	$25^{1}$
	49	73	20	76	43. 75	63	8	75	71	70	44.	70	23. 08	65	70	23
Professional growth	31,	15,	6,	10,	17,	7,	7,	3,	10,	2,	5,	3,	16,	11,	3,	2,
i ioicssionai giowili	60.	68.	60	10, 19.	53.	21.	21.	9.3	35.	2, 20	5, 55.	5, 60	61.	64.	5, 60	2, 50
	78	18	00	61	13	88	88	9.5	71	20	55. 56	00	54	04. 71	00	50
Amount of work being	4,	2,	0,	2,	13	0,	0,	0 1,	4,	4,	0,	0,0	0,0	0,	0,	0,
done	4, 7.8	2, 9.0	0, 0	2, 3.9	<sup>1</sup> , 3.1	0,	0,	<sup>1</sup> , 3.1	4, 14.	4, 40	0,	0,0	0, 0	0, 0	0,	0, 0
done	7.8 4	9.0	U	2	3.1	0	U	3.1	14. 29	40	U			U	U	0
	4	9		2	3	1		3	29							

\*Service Learning \*\*Service Learning Partner