

**Conducting a Comprehensive Needs Assessment of Health and Exercise Science  
Undergraduates for Service-Learning Preparation**

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Service-learning is derived from experiential learning and consciousness-raising models. Health and Exercise Science students can benefit from participating in a service-learning experience to improve academic knowledge and develop professional skills in their chosen field. The current needs assessment explored two inquiry questions using a mixed methods approach: 1) What are Health and Exercise Science undergraduate students' perceptions and expectations regarding service-learning? and 2) What are undergraduate students' level of and relationship between self-efficacy and confidence in skills for service-learning? Undergraduate students participated in focus groups to assess their perceptions and expectations of service-learning and completed surveys to rate their perceived self-efficacy for and confidence in skills for service-learning. The setting of the needs assessment was a small, private University located in Pittsburgh, Pennsylvania. Twenty-six undergraduates in the Health Sciences and Exercise and Sports Science majors provided data for this inquiry project. The three themes that emerged from the focus group discussions were related to the participants' perceived benefits, challenges, and recommendations for service-learning. Survey results showed a high baseline level of self-efficacy and confidence in skills for service-learning. There was also a strong, positive correlation between self-efficacy and skills. Findings from this study will lay the groundwork to create a service-learning course in the upcoming academic year. Key takeaways that will be applied to this future course include

involving students in the planning phase and integrating a pre-service orientation session to prepare students for a future service-learning experience.

## Table of Contents

Preface.....	xii
<b>1.0 Chapter One .....</b>	<b>1</b>
<b>1.1 Introduction .....</b>	<b>1</b>
<b>1.2 Problem of Practice .....</b>	<b>3</b>
<b>2.0 Chapter Two.....</b>	<b>6</b>
<b>2.1 What is Service-Learning? .....</b>	<b>6</b>
<b>2.1.1 Theoretical Framework for Service-Learning .....</b>	<b>7</b>
<b>2.2 Perceptions and Expectations of Service-Learning.....</b>	<b>8</b>
<b>2.2.1 Perceived Benefits of Service-Learning .....</b>	<b>11</b>
<b>2.2.1.1 Benefits to Students .....</b>	<b>11</b>
<b>2.2.1.2 Benefits to Community .....</b>	<b>13</b>
<b>2.2.2 Perceived Challenges of Service-Learning.....</b>	<b>14</b>
<b>2.3 Self-Efficacy for Service-Learning.....</b>	<b>16</b>
<b>2.4 Skills for Service-Learning .....</b>	<b>17</b>
<b>2.4.1 Time Management and Transportation.....</b>	<b>18</b>
<b>2.4.2 Cultural Competence and Communication .....</b>	<b>18</b>
<b>2.4.3 Problem Solving and Group Work.....</b>	<b>20</b>
<b>2.4.4 Academic Learning and Reflecting on Learning .....</b>	<b>21</b>
<b>2.4.5 Recognizing One’s Social Identity .....</b>	<b>22</b>
<b>2.4.6 Recognizing Barriers to Optimal Health .....</b>	<b>23</b>
<b>2.5 Relationship Between Self-Efficacy and Skills for Service-Learning.....</b>	<b>25</b>

2.6 Opportunities for Improving Service-Learning Experiences.....	26
2.7 Integrating Student Voice Into Service-Learning .....	29
2.8 Conclusion .....	31
<b>3.0 Chapter Three .....</b>	<b>33</b>
3.1 Inquiry Questions .....	33
3.2 Setting .....	33
3.3 Population .....	34
3.4 Instrumentation .....	35
3.4.1 Focus Group .....	35
3.4.2 Survey.....	36
3.5 Data Collection.....	37
3.6 Data Analysis .....	38
3.6.1 Qualitative Data Analysis.....	38
3.6.2 Quantitative Data Analysis.....	39
<b>4.0 Chapter Four .....</b>	<b>41</b>
4.1 Sample Characteristics .....	41
4.2 Survey Results.....	42
4.2.1 Self-Efficacy for Service-Learning .....	42
4.2.2 Confidence in Skills for Service-Learning .....	43
4.2.3 Relationship Between Self-Efficacy and Skills for Service-Learning .....	44
4.3 Summary of Focus Group Findings.....	47
4.3.1 Theme 1: Undergraduates and the Community Reap the Benefits of Service-Learning.....	48

4.3.1.1 Benefits to Self.....	49
4.3.1.2 Benefits to Community .....	58
4.3.2 Theme 2: Facing Adversity: Challenges of Service-Learning .....	60
4.3.2.1 Logistics .....	60
4.3.2.2 Apprehension .....	66
4.3.3 Theme 3: There is Always Room for Improvement.....	68
4.3.3.1 Student Voice .....	68
4.3.3.2 Student Preparation for Service-Learning.....	72
4.3.3.3 Real-Life Experiences.....	77
<b>5.0 Chapter Five .....</b>	<b>79</b>
<b>5.1 Introduction .....</b>	<b>79</b>
<b>5.2 Self-Efficacy for Service-Learning.....</b>	<b>79</b>
<b>5.3 Confidence for Service-Learning Skills.....</b>	<b>81</b>
<b>5.4 Relationship Between Self-Efficacy and Confidence in Skills for Service-Learning .</b> .....	<b>84</b>
<b>5.5 Interpretation of Findings .....</b>	<b>85</b>
<b>5.5.1 Theme 1: Undergraduates and the Community Reap the Benefits of Service-</b> <b>Learning.....</b>	<b>86</b>
<b>5.5.1.1 Benefits to Self in the Service-Learning Experience .....</b>	<b>86</b>
<b>5.5.1.2 Benefits to the Community .....</b>	<b>92</b>
<b>5.5.2 Theme 2: Facing Adversity: Challenges of Service-Learning .....</b>	<b>93</b>
<b>5.5.3 Theme 3: There is Always Room for Improvement.....</b>	<b>96</b>
<b>5.5.3.1 Student Voice .....</b>	<b>96</b>



5.5.3.2 Student Preparation .....	98
5.5.3.3 Real-Life Experiences.....	100
5.6 Connections to Theories and Models Associated with Service-Learning.....	101
5.7 Strengths and Limitations .....	103
5.8 Future Recommendations and Implications for Practice .....	105
5.8.1 Recommendations for Future Research.....	105
5.8.2 Implications for Practice .....	106
5.8.2.1 Outline of Service-Learning Planning, Implementation and Evaluation.....	109
5.9 Conclusion .....	113
Appendix A Introductory Script .....	114
Appendix B Service-Learning Focus Group Script.....	116
Appendix C Survey .....	119
C.1 Community Service Self-Efficacy Scale.....	119
C.2 Student Service- Learning Inventory .....	122
C.3 Demographic Information .....	127
Bibliography .....	128

## List of Tables

Table 1 Characteristics of n=26 undergraduate students attending focus groups.....	42
Table 2 Community Service Self-Efficacy Scale (CSSES) and Student Service-Learning Inventory (SSLI) scores (n=25).....	44
Table 3 Correlation between service-learning self-efficacy and confidence in skill areas (n=25)... .....	46
Table 4 Emergent themes and categories from focus groups with n=26 undergraduate students.... .....	48

## List of Figures

Figure 1 Seven step model for planning, implementation and evaluation of service-learning in a Health Sciences course .....	110
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## Preface

I would like to thank my dissertation advisor, Dr. Sharon Ross for her constant support and guidance throughout this process; as well as my committee members, Dr. Carl Fertman and Dr. Natalie Rugg for their assistance along this journey. I must also thank my husband, family and friends for their patience and support as I worked to complete my degree. Finally, I would like to acknowledge the students who gave of their time and participated in the focus groups, without their cooperation and insight, none of this would be possible. I am happy to have learned from all of them and look forward in continuing our work together to strengthen the use of service-learning as pedagogy to better engage students and the community in learning.

Emily Shimko

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## **1.0 Chapter One**

### **1.1 Introduction**

Undergraduate students who graduate from Health and Exercise Science majors are expected to enter the workforce with knowledge of the basic and human sciences and skill sets that fit clinical or nonclinical settings. Skills include exercise prescription, modification, and progression, and behavior change strategies. These skills are taught and tested and are frequently learned alongside their peers in classroom and laboratory settings. However, these new professionals must interact with a diverse array of individuals and populations in real-world, less stable environments. There is a gap between what undergraduate students learn in college and what is expected of them in the workforce. Themes that emerged from previous studies in the review of literature conducted with undergraduate students were an increased need for problem-solving, communication, collaboration and hands-on skills. Professionals will interact with clients and patients who are very different from themselves in terms of age, socioeconomic status, and cultural and religious beliefs. Additionally, the United States population is growing older and more diverse, thus increasing the opportunities for interactions with diverse populations. Professionals must be able to communicate with empathy while they collaborate with patients and clients and assist with problem-solving. These are areas in which students and graduates report being under-prepared (Tinning, Jenkins, Collins, Rossi, & Brancato, 2012). These skills are not easily or effectively taught through a lecture or assessed on an exam. The use of student-centered learning approaches, specifically service-learning, is a viable approach.

Results from the National Survey of Student Engagement provides evidence that graduating students are not equipped to work with and deliver equitable health care services to diverse populations. Only 51% of undergraduate seniors reported high levels of confidence that they could contribute to the well-being of their communities (National Survey of Student Engagement, 2017). Similarly, only 53% of students felt confident they could lead a group where people from different backgrounds felt included. When surveyed about the past year, 35% and 24% of seniors reported that coursework emphasized skills to work effectively with people from different backgrounds quite a bit and a lot, respectively. These numbers combined, are higher, however, when asked about coursework discussing issues of privilege or equity, 28% reported this happened quite a bit, and 21% reported a lot.

Additional studies have been conducted to ask students how best to bridge the gap on what they need to learn about working with diverse populations. One study asked this question of first year medical students (Gonzalez & Bussey-Jones, 2010). Seventeen first year medical students participated in a focus group to discuss how they felt learning to work with diverse populations and health disparities should be included in their education. Students reported using hands-on learning and community interactions would be desirable. They also suggested to ease the burden and potential resentment of increasing the course load, it should be included in a course that also practiced tangible skills (Gonzalez & Bussey-Jones, 2010). These suggestions are in-line with service-learning as a potential pedagogical method. Promisingly, there is additional literature that endorses service-learning as a viable method to learn and practice tangible health promotion skills (Benabentos, Ray, & Kumar, 2014).

The Corporation for National and Community Service relies on community service and service-learning to address needs of individuals in the United States that cannot be met through

current social programs (Corporation for National and Community Service, 2010). The use of service-learning in higher education will engage students in addressing these unmet needs, connect learning to societal issues, and make higher education more relevant in society (T. M. Kruger & Pearl, 2016).

Simply mandated, service-learning within a course or the plan of studies is not the solution itself. Mandates can often get results, however in this case, a mandate alone appears to be counterproductive. Service-learning often aims for community improvement and social justice. Health and Exercise Sciences undergraduate students in the current study are taught that they must be aware of the needs and beliefs of others as it pertains to health. It is proposed that this same guideline is followed for development of service-learning projects. Students' needs should be taken into consideration and opportunities for improvement given prior to engagement with a community partner. To create a truly meaningful and valuable experience, it seems logical to discover what students are bringing to the experience themselves. This is the first step to collective learning and equal distribution of power that one would hope to see throughout the service-learning experience. Service-learning is to be a learner-centered pedagogy (Stephenson, Peritore, Webber, & Kurzynske, 2013), therefore, a student needs assessment is predicted to strengthen that concept. Prior to service-learning, students should be invited to share their perceptions and expectations, and levels of self-efficacy and confidence in skills related to service-learning.

## **1.2 Problem of Practice**

The lead researcher's institution of employment (referred to throughout as "the University") is the site of this problem of practice. The Department of interest is Health Sciences,

with majors in Health Sciences and Exercise and Sport Science (shortened to Exercise Science throughout). There is a disconnect between the mission of the University, the stated learning outcomes of the Health and Exercise Sciences majors, and the present curriculum. Graduating students receive a liberal arts degree, which is used as a selling point to boast that the program will graduate well-rounded, civic-minded adults. The Health Sciences and Exercise Science majors include an objective in the program of studies that asserts that program graduates will be prepared to deliver wellness programs to underserved populations and advocate for wellness for all members of society on local, national and international levels. In order to meet these objectives, it will require some strengthening in teaching methods.

The University is midway through a five-year strategic plan with objectives that include transformational experiences and academic excellence. In 2016, the students in the Health Sciences department rated significantly lower than students at other Catholic Colleges and Universities in reflective and integrative learning, collaborative learning, discussions with diverse others, student-faculty interactions and quality of interactions (National Center for Education Statistics, 2016). A meaningful, well-executed and well-guided service-learning project would further work to fulfill the University's mission while meeting the intended learning objectives. Service-learning is understood as a transformational learning experience, (Fahrenwald, Eschenbauer, Porter, & Donald, 2014) therefore will also aim to meet the goals of the strategic plan.

Service-learning is a teaching program that aims to increase academic knowledge and change the behaviors of students to become more civically engaged citizens with a grasp of various social issues and potential solutions. An important step in any program intended to improve knowledge and change behaviors is to engage stakeholders. Engaging with the student



stakeholders early in the conception of a service-learning course promotes favorable outcomes and is more in-line with learner-centered theories such as Freire's (1970) education for liberation model and John Dewey's experiential learning model (Giles & Eyler, 1994; Whitely & Walsh, 2014).

There is a pressing need in the current University setting to identify undergraduate students' perceptions and expectations, self-efficacy and baseline capacity for service-learning. The design of including students in focus group discussions along with survey completion was intended to create an opportunity to include the students' voices in the process of creating a service-learning course. Such data could be used to better meet students' needs, address apprehensions that exist, and improve the learning experience within a service-learning course. Further, as a result of a well-executed service-learning course, students will likely be better prepared for both professional and civic and social life after graduation.

## 2.0 Chapter Two

### 2.1 What is Service-Learning?

Service-learning is defined as a “credit-bearing educational experience that combines an organized service activity to meet identified community needs and student reflection to gain a more meaningful understanding of academic content with an enhanced sense of civic responsibility” (Bringle & Hatcher, 1996, p. 222). Service-learning is “different from community service because it has a clear tie to academic coursework, and it varies from an internship in that it does not need to include skills in the context of professional education” (Bringle & Hatcher, 1996, p. 222). The purpose of service-learning should not solely focus to provide a sense of euphoria for its participants. Personal growth is often cited as an outcome, however, that is not the same as euphoria. Others have called for a more productive use of service-learning, rather than to just do some good (Muturi, An, & Mwangi, 2013). The intention of service-learning as a pedagogy is to improve academic learning, promote behavior change towards civic engagement and provide a benefit to the community. Four primary stakeholder groups are identified in a service-learning project: the students, community partner, faculty, and institution (*A Practical Guide for Integrating Civic Responsibility into the Curriculum*, 2006). If implemented correctly, service-learning will provide reciprocal benefits to the four stakeholder groups (Bringle & Hatcher, 1996). This review of literature will primarily focus on the student and community stakeholders.

### 2.1.1 Theoretical Framework for Service-Learning

The concept of service-learning draws from John Dewey's experiential learning model that states that learning is a process of interactions and meaning-making and should be accomplished through integrating experience and reflection (Giles & Eyler, 1994; Whitley & Walsh, 2014). Service-learning is also rooted in Paulo Freire's consciousness-raising model (1970). Freire advocates for "breaking down power dynamic between teacher and student" (p. 20) and that learning should be a co-creation of knowledge between stakeholders in the learning experience (Whitley & Walsh, 2014). To follow Freire's model, service-learning should be a collaborative effort, leading not only to co-creation of knowledge, but also improved relationships and reciprocal benefits for stakeholders (Muturi et al., 2013). Upon learning that many undergraduate students use service-learning as a means to gain admittance into graduate school, Fletcher and Piedmont also recommend using feminist theory in service-learning design (2017). Feminist theory draws upon a similar line of teaching. In terms of healthcare teaching, according to feminist theory, "professionals are seen as 'doing *with* rather than *to*' and that each individual is valued and respected" Allen, 1993 (as cited in Pelham & Sills, 2009, p. 33). Thus service-learning should assess both the students' perceptions around service itself, and their ability to address the academic and social components of service-learning, in a manner consistent with the values of service-learning.

## 2.2 Perceptions and Expectations of Service-Learning

Perceptions of service-learning can be addressed by asking students to draw on prior experiences, what they expect in a future experience, as well as attitudes regarding service-learning. In the service-learning literature, students' perceptions and expectations of service-learning are generally seen as both benefits and challenges experienced by themselves and the community as a result of engaging in a service-learning course. Prior to engaging in service-learning projects, students expressed positive expectations including personal and academic growth. They also expressed concerns over building relationships and working effectively with their community partner (Diambra, McClam, Fuss, Burton, & Fudge, 2009). Additional studies examined perceptions at the end of a service-learning course. Although students may be resistant and apprehensive about service-learning in the beginning, at the conclusion of a service-learning experience, most students reported improved attitudes about service-learning pedagogy (Begley, Haddad, Christensen, & Lust, 2009).

Muturi et al., (2013) tested a hypothesis that prior service-learning experience would influence one's likelihood to participate in service-learning again in the future. However, the results showed that attitudes significantly influenced motivation, not prior experience. Caspersz and Olaru (2017) also found no significant differences in the value students placed on service-learning based upon whether one had previously engaged in a service-learning or not. They hypothesized that "when service-learning experiences require minimal or absence of formal activities" (p. 695) the expected benefits are not present.

Other studies have demonstrated that it is not simply engaging in prior service-learning that leads to a positive student perception, but the quality of the experience also plays a critical role. Service-learning experiences are impacted positively or negatively by the interactions with a

community partner. Adult students reported unfavorable outcomes when the work with the community partner was not directly tied to the academic content of the course (Reed, Rosing, Rosenberg, & Statham, 2015). Additionally, students as young as high school, found service much less meaningful when it involved an indirect community partner versus direct contact with community members (Jones, Segar, & Gasiorski, 2008). That is, students may prefer, for example, spending time at the food bank interacting with patrons rather than packing food at a school that will be taken to a food bank.

One study was able to make comparisons of students' perceptions of the value of service-learning across service-learning sites. Champagne (2006) compared student ratings of competency development in seven areas of responsibility defined by the accrediting body for Health Education across different service-learning sites. The sites worked with a variety of community partners including college students at a university health center, an after-school program for young girls, a university research study on health disparities, a community health center, and two rape crisis centers. Students rated their perceived competency development higher when more areas of responsibility were incorporated into their service-learning experience. These reports were supported through student reflections and faculty analysis of students' annotated portfolios (Champagne, 2006). The sites that incorporated more of the areas of responsibility led to better ratings of outcomes by students. This finding supports the notion that the better one perceives a specific service-learning experience, the better they may perceive service learning in general.

Prior service-learning experience can provide insight about the students' likelihood to participate in service-learning again or other desirable extra-curricular learning engagement opportunities. Students with service-learning experience are more likely to be engaged students and citizens. These students are more likely to participate in clubs, go on academic field trips,

participate in study groups, attend campus events, and volunteer (Burke & Bush, 2013). This provides some evidence for the concepts of enhanced academic learning and civic engagement, and the need to make these anticipated outcomes clearer to students. Likewise, 90% of students who elected into a pharmacy service-learning course reported previous volunteer or service-learning activities (Brown, Heaton, & Wall, 2007). Therefore, it is reasonable to believe that those students who elected into the course found benefit from the previous service or volunteer experience. In this instance, it becomes difficult to determine if the students reported positive outcomes because of service-learning alone, or if it was due to a predisposed interest in this type of work and learning (Brown et al., 2007). A similar reporting bias may be seen when students voluntarily provide feedback about the impact of the experience at the end of a service-learning course (Begley et al., 2009). It is possible that there was a higher response rate from those students who perceived service-learning as beneficial.

We can also learn from the students who did and did not have prior service experience about what barriers to service they perceive (Burke & Bush, 2013). Common barriers to participating in service include time (i.e., managing multiple commitments), affordability, transportation and health issues (Burke & Bush, 2013). In this same study, students cited their teacher not requiring service as a barrier (Burke & Bush, 2013), which supports the argument for service-learning as a requirement for all students.

As previously stated, mandates may lead to service-learning participation, but may also create a feeling of resentment. Service-learning as a requirement has been described as a “double-edged sword” by Jones et al. (2008). The researchers asked undergraduate students to reflect on the mandatory service-learning they completed in high school. Overall, students felt it was a burden. Additional reports indicated that students falsified their service logs or chose the easiest

options. In this case, students were given too many options and were left on their own to complete a required service (Jones et al., 2008). If given a voice in the planning process and guidance from faculty and service-learning staff rather than left to their own devices, students may have had a better experience. The same students interviewed by Jones et al. (2008) reported that because their service-learning was mandated it was not personally fulfilling. Although they could articulate the benefits of service-learning, they did not report feeling good because of engaging in service-learning, and thus chose not to continue when service-learning became an optional requirement. This line of thinking needs to be considered, however, aiming for student self-gratification should not be the focus of service-learning design.

### **2.2.1 Perceived Benefits of Service-Learning**

Service-learning is intended to provide reciprocal benefits to the undergraduate students and the community members with whom they engage. Benefits to students include a variety of learning experiences such as improved interpersonal skills and understanding of academic content and workplace skills; these benefits are heightened by the real-world experience that service-learning provides. Some previous studies have also demonstrated that students felt a sense of gratification following the experience. The community benefits documented in the literature included increased knowledge for community members of the topic of the service-learning project, for example nutrition practices, and organizations can benefit from additional (student) labor.

#### **2.2.1.1 Benefits to Students**

Student perceptions of service-learning are related to the expected benefits that students believed they will gain at as a result of participating in service-learning. Muturi et al. (2013)

conducted a focus group to gather more rich and descriptive data on undergraduate students' perceptions of service-learning. The three main themes related to students' expected benefits for service-learning included practical experience, professional development, and personal development (Muturi et al., 2013). These perceived expectations did arise as benefits that many students experienced as a result of engaging in service-learning throughout the literature.

Students were able to articulate actual benefits that occurred as a result of service-learning, not only expected benefits. One study that demonstrated the benefits of service-learning to undergraduate students is The GIFT (Getting Into Fitness Together) program. This was a service-learning program that paired psychology or health and wellness majors with families who had at least one child (Himelein, Passman, & Phillips, 2010). The students conducted a lifestyle intervention including physical activity lessons, providing healthy snacks, and made home visits with the aim of preventing obesity in the families with whom they were paired. (Himelein et al., 2010). In a focus group interview, students were asked to reflect on the service-learning course in terms of a SWOT (strengths, weaknesses, opportunities, threats) analysis. Most of the students (93%) believed the real-world experience was the greatest strength of the service-learning course and that it improved their academic learning. Students also felt they made a difference in the community; a difference they would not have made by learning only within the confines of the college campus. Regarding what students learned about themselves, 33% reported improved confidence, 27% reported psychological changes about attitudes of working with children and overweight individuals, and career choice implications (27%) (Himelein et al., 2010).

Additional studies reported similar benefits associated with service-learning. Occupational therapy students who completed an intergenerational service-learning course reported a high level of knowledge of the subject matter, relevant career experience, and personal growth as beneficial



outcomes on course evaluations (Horowitz, Wong, & Dechello, 2010). As part of a mixed methods approach to service-learning research, undergraduate students were asked to complete a survey sharing what they valued in service-learning (Caspersz & Olaru, 2017). The responses were then used to inform the design of future programs. All listed survey items were highly valued by students, but the four most significant were: community involvement, personal growth, developing workplace skills, and leadership skills. Similarly, kinesiology undergraduate students who worked with youth in service-learning also reported self-fulfillment as a benefit to the experience (Walsh et al., 2014). Finally, exercise science students reported they improved their relationships with the supervising faculty member as a result of the service-learning experience (Bjerke, 2012).

#### **2.2.1.2 Benefits to Community**

Research with community members involved in service-learning projects and community organizations leaders who supervised students confirmed that service-learning projects provided the intended reciprocal benefits. Cronley, Madden and Davis (2015) conducted focus groups with leaders in community organizations that had service-learning agreements with their institution. The leaders reported motivating factors to hosting students for service-learning, saying students who engaged in service-learning were often more motivated and completed higher quality work than those volunteering or not earning a grade for their work.

An additional study by Blouin and Perry (2009) included semi-structured interviews with 20 community organization leaders to provide insight to the benefits, costs, and areas for improvement to community partners in service-learning partnerships. Overall, they concluded that the benefits outweighed the costs. A commonly cited benefit included that students provided an additional source of (free) labor for the community organization (Blouin & Perry, 2009). Although this is a benefit for the community organization, it may damage the integrity of the learning

experience if the tasks students are performing are not monitored carefully. Community organization leaders also reported access to campus resources and students who remain as volunteers after the course ends as benefits (Blouin & Perry, 2009).

Previous studies have collected impact data from the community member partners (Begley et al., 2009; Gray, Galvan, & Donlin, 2017; Horowitz et al., 2010). Data reported in these instances was directly from community members involved in the service-learning project, not the leaders of the community organizations. The impact a program had directly on the community members it is intended to serve is a critical piece of program evaluation. Overall, the perception of service-learning projects by the community members was positive; community members reported high satisfaction. They believed that there were benefits to their own health and well-being, including increased knowledge because of the students' service-learning interventions (Begley et al., 2009; Gray et al., 2017; Horowitz et al., 2010).

### **2.2.2 Perceived Challenges of Service-Learning**

Although service-learning offers several benefits to both undergraduate students and community organizations, it does not come without challenges. Challenges are present both to undergraduate students and community members and leaders. Challenges range from nervousness of the part of students to community leaders finding students to be unprofessional.

Undergraduate students can often feel anxious at the onset of a service-learning experience. As a response to a guided reflection question, students were asked to describe their apprehensions for service-learning (Peterson, Wardwell, Will & Campana, 2014). The themes that arose were fear of the unknown and worries about not meeting expectation set by themselves, the community partner, or their faculty. Service-learning projects may involve interactions with community

members who are diverse, and very different from the undergraduates. This also caused apprehension on the part of the students. Although communication and interpersonal skills are strengthened through service-learning experiences, the tension created in anticipation of the experience was very real for students (Peterson, et al., 2014). In addition, this new experience came with the need to manage their time and preparation strategies differently than they would for a traditional learning environment (Post, Wallace, Davis & Clinchot, 2016).

Challenges regarding the service-learning experience were present when students' expectations were not met (Paull et al. 2017). In one study, researchers interviewed university students to gauge opinions on various types of experiences, including volunteering and service-learning. Respondents who were motivated by professional growth opportunities expected efficient use of their time and investment from the community partner. Overall, students reported poor experiences if they felt their time was not used efficiently or if they were not kept busy or engaged by the community partner (Paull et al., 2017). Additionally, at the conclusion of a service-learning course, students had voiced concerns that the service-learning project was too short and worried about sustainability of the program for the community (Himelein et al., 2010).

Community partner leaders confirmed these negative perceptions when there was a poor fit between the service-learning course and the objectives of the community partner (Blouin & Perry, 2009). The biggest costs to service-learning reported by the community leaders, in addition to time and resources, were student attitudes. Students who were underprepared, unprofessional, and unreliable hindered the work of the organization and at times students overstepped boundaries set by organizational policies. Additional barriers reported by community leaders included hosting students who lacked communication skills, were not committed, and behaved unprofessionally (Cronley et al., 2015).

### 2.3 Self-Efficacy for Service-Learning

Self-efficacy for service-learning is the most important construct of the civic-minded individual (Reeb, Folger, Langsner, Ryan & Crouse, 2010). Self-efficacy can be described as one's perception of their capability to perform a task or behavior (Bandura, 1986). Self-efficacy has additional positive impacts on mindset. Those with higher levels of self-efficacy are better able to cope in challenging situations and experience higher performance proficiency. Self-efficacy is also a predictor of behavior change and engaging in subsequent, similar experiences; in fact, a stronger predictor than the accomplishments related to the experience itself (Reeb et al., 2010). Those who engage in service-learning with a high level of self-efficacy are more likely to seek out another experience, even if they are presented with challenges.

Self-efficacy is such a critical component of engaging in service-learning behaviors, a scale specific to service-learning has been developed and validated (Reeb, Katsuyama, R. M., Sammon, J. A., & Yoder, 1998; Reeb et al., 2010). Researchers saw the need to measure self-efficacy for community service in order to understand its role on successful service-learning and thus developed The Community Service Self-Efficacy Scale (CSSES). The CSSES has been validated as a psychometric instrument to measure self-efficacy, specific to the task of service-learning (Reeb et al., 2010). Although additional research is needed, the authors hypothesized that self-efficacy may have a mediating effect on service-learning and the perceived benefits of engaging in service-learning; That those with higher levels of self-efficacy would have a higher capacity for learning and growth as a result of service-learning.

Previous studies have examined self-efficacy as a predictor of service-learning behavior. In one study, 272 undergraduate students who had participated in a service-learning course completed a survey to evaluate self-efficacy, motivation, and public affairs (Richards & Levesque-

Bristol, 2016). The CSSSES was used as the measure of self-efficacy for service-learning. In accordance with the researchers' hypothesis, community service self-efficacy predicted students' level of community engagement, cultural competence, and ethical leadership. Community engagement showed the strongest relationship with self-efficacy. The authors also found a significant, direct pathway between self-efficacy and self-regulated motivation.

## **2.4 Skills for Service-Learning**

Service-learning requires confidence in academic skills that overlap with traditional courses. Example skills include the ability to articulate learning in both written and oral formats and further apply these skills in a real-life setting. Students should also be confident in their ability to problem solve and manage their time efficiently. Working with community members also requires confidence in communicating with others and a higher level of cultural competency. To engage with community members in a health or exercise science service-learning course, students should first be confident in recognizing their own social identity and how that has impacted their health, as well as be aware of the barriers that exist to reach a state of optimal health in others. Students' confidence in their capacity to carry out skills necessary for service-learning may be used to determine student readiness for a course (Behar-Horenstein et al., 2015).

### **2.4.1 Time Management and Transportation**

Service-learning coursework often involves a larger time commitment or additional out of class work versus traditional coursework. In this or any service-learning experience, students need the ability to manage their time and multiple responsibilities effectively (Lau, 2016). When the community partner is not adjacent to campus, students must also be capable of arranging transportation or navigating public transportation (Darby, Longmire-Avital, Chenault, & Haglund, 2013).

Service-learning is an opportunity for students to learn how to develop skill sets and self-management strategies. “Healthy Choices For Me” was a service-learning project in which occupational therapy students led an after-school program. The service portion was voluntary and occurred outside of the normal class time. Although this created a challenge for students in terms of time management, the students in this sample were able to develop their own strategies to better manage their time as a result of engaging in service learning (Lau, 2016).

### **2.4.2 Cultural Competence and Communication**

Service-learning that requires interaction with community members requires confidence in the ability to communicate with a variety of populations, including those younger or older and those with diverse cultural backgrounds. Service-learning has been used as an opportunity for students to improve their abilities to educate the public on important health concerns while also developing and exercising cultural competence and communication skills. Begley et al. (2009) described a course for health profession majors who conducted a health fair and provided interactive education sessions aimed at children in an underserved community. Following the

event, the students reported decreased anxiety about working with children, and improved confidence and cultural competency (Begley et al., 2009). Two other studies described outcomes from community nutrition education programs (Cooke, Ash, Nietfeld, Fogleman, & Goodell, 2015; Gray et al., 2017) and one of a fall prevention education program (Horowitz et al., 2010). These studies involved community partners from diverse demographic backgrounds distinct from those of the students. The nutrition education programs focused on children, teens, and adults at various community sites (Cooke et al., 2015) and low income Latinos (Gray et al., 2017). The fall prevention service-learning course worked with community dwelling older adults (Horowitz et al., 2010). In these cases, when students served as educators, outcomes included improved self-efficacy for teaching (Cooke et al., 2015). Further, educating older adults resulted in positive changes in perceptions of older adults and students took a more constructivist view of life (Horowitz et al., 2010), realizing that people learn from experience and make meaning from those experiences.

The opportunity to work with a variety of populations in a service-learning course was also a good opportunity to building cultural competency. Students spent five weeks with four different populations in the Southwestern United States. Students partnered with local agencies that served immigrants, refugees, American Indians, and gay, lesbian, bisexual and transgender youth. Following the experience, students provided written and oral reflections, as well as completed a post-service questionnaire. This study found improvement in students' intercultural humility and leadership skills, a commitment to service, and personal transformation (Sabo et al., 2015). Upon completion of the service-learning course, 20% of the students continued to work with the local communities, and a smaller group of students worked with faculty to develop a new course (Sabo et al., 2015). Finally, in a randomized-controlled trial, students in the service-learning group

scored significantly higher compared to students in the control (non-service-learning) group on post-course survey on questions regarding effective communication (Kearney, 2013).

### **2.4.3 Problem Solving and Group Work**

Another skill area that is necessary for service-learning is problem solving. Students will need to be able to problem solve both on their own and as members of groups. Students will be interacting with a real-life partner, and thus must be able to problem-solve on the spot (Begley et al., 2009) or know who to go to when they cannot handle a situation or answer a question. Upon completion of a service-learning course, one study reported 50% of students strongly agreed that they improved problem-solving skills (Bjerke, 2012). Additionally, one study found that critical thinking skills improved when students were responsible for developing nutrition lessons in a service-learning course, not just delivering them (Gray et al., 2017).

In many of the service-learning projects in this literature review, students were required to work in teams to meet their community partners' needs. One study measured how service-learning as a group project contributed to a student's ability to work in a group (Keim, Goodrich, Crofts & Walker, 2015). Examining data before and after the service-learning course, the authors found significant increases in the participants' sense of importance of group work, confidence in group work, and engagement between group members (Keim et al., 2015). This study shows the importance of learning from peers in a service-learning project, and that students feel that they can contribute to the good of a team. An additional skill that accompanies group work is leadership skills. Students have also reported an improvement in leadership skills as a result of service-learning (Sabo et al., 2015; Walsh et al., 2015).



#### **2.4.4 Academic Learning and Reflecting on Learning**

By definition, service-learning is an academic experience that incorporates a service activity and includes a student reflection. As described by Bringle and Hatcher (1996), service-learning is defined as a “credit-bearing educational experience that combines an organized service activity to meet identified community needs and student reflection to gain a more meaningful understanding of academic content with an enhanced sense of civic responsibility” (Bringle & Hatcher, 1996, p. 222). Adhering to this definition, students should be confident in their ability to learn and apply academic knowledge. They must also be able to reflect upon and articulate what they have learned. The reflection is frequently a written product in which the instructor of the course is the audience. Students should also be confident in their ability to articulate their knowledge surrounding specific, relevant topics to the community members when the aim of the service activity is to engage in an educational program with community members. Previous studies have cited several instances in which students have reported an increase in academic learning as a result of the service-learning and hands on experiences. These reports are visible both in students’ reflective journals that have been analyzed and in post-course surveys and evaluations.

In an exercise science service-learning study, undergraduate students implemented an exercise program to improve the health of local firefighters (Bjerke, 2012). Results of a post-service, quantitative survey recommended by Campus Compact showed that most students (66%) strongly agreed that service-learning improved their understanding of course content. Student field notes from service-learning experiences have confirmed students’ ability to integrate knowledge into the service-learning activity and actual learning and growth (Lau, 2016). Occupational therapy students reported a higher knowledge of subject matter after conducting a fall prevention program with older adults (Horowitz et al., 2010).

Two studies involved students in the needs assessment portion of a community intervention (Gray et al., 2017; Greenberg, 2002), and one used a comprehensive community assessment for the entirety of the service-learning project (Jacquez & Ghantous, 2013). Students differentiated conducting a needs assessment in the community as “learning” versus being “taught” in a classroom (Greenberg, 2002). Students involved in a needs assessment also reported learning about diversity in health, and that learning this by reading a textbook would not have been as impactful as the service-learning experience (Jacquez & Ghantous, 2013).

#### **2.4.5 Recognizing One’s Social Identity**

Recognition of one’s own social identity is an important skill for service-learning and one that can also be enhanced as a result of engaging in a service-learning course. Service-learning requires students to interact with a variety of community populations. For this to be effective, students first must understand how their own social identity has shaped their lived experiences. This understanding can lead to recognizing similarities and differences among individual experiences and backgrounds. Within this awareness of their own identities, students should be able to identify areas of privilege and disadvantage, and how this has impacted their own health. One such tool that has been used in the literature is a Health Privilege Exercise. Prior to engaging in this exercise, students consider their own social identities and how society versus individual responsibilities shape health (Irby-Shasanmi, Oberlin, & Saunders, 2012). Before completing the exercise, students believed that optimal health is one’s own responsibility and not influenced by society or level of social class. They also believed that health is a privilege, not a right (Irby-Shasanmi et al., 2012). Even students whose health had been negatively impacted by their social standing were not aware of how social determinants shaped their own health. Upon completion of

the Health Privilege Exercise, students did realize the impact of social determinants on health (Irby-Shasanmi et al., 2012).

Service-learning is an opportunity for students to become more aware of their own intersecting identities and how they relate to others that they interact with and serve. When students are given the opportunity to address this skill, it has been demonstrated that their ability to recognize identity and associated privilege will persist long after the service-learning ends. Students were interviewed 2 to 4 years after completing a service-learning course with a community partner providing AIDS and nutrition services (Jones & Abes, 2004). The students came to realize their own economic privilege and the impact that their own economic standing had on their past and present experiences. In addition to this self-discovery, the students felt this as a call to action to serve. Students also came to realize the privilege that came with being a member of the majority race and sexuality (white and heterosexual). However, they did not think these social constructs should have a bearing on one's opportunities in life and did not feel uncomfortable interacting with those of different race or sexuality than themselves. Students reported continued self-deliberation on their identity and privilege in the years that followed the service-learning experience (Jones & Abes, 2004).

#### **2.4.6 Recognizing Barriers to Optimal Health**

In a service-learning experience, the community partner or members served often vary from the students in terms of one or more of the following: age, ethnicity, socioeconomic status or education attainment (Begley et al., 2009; Himelein et al., 2010; Horowitz et al., 2010; Kearney, 2013; J. S. Kruger, Kruger, & Suzuki, 2015; Sabo et al., 2015). Due to these differences between students and community partners, there will likely be fundamental differences in healthcare access

and use. In a health-focused service-learning course, students must be able to first identify their own privileges and barriers as they relate to optimal health (Irby-Shasanmi et al., 2012). Building from this self-recognition, students should be able to recognize barriers that others face to optimal health, potentially contributing to health disparities (Behar-Horenstein et al., 2015; Brown et al., 2007; Horowitz et al., 2010; Jacquez & Ghanous, 2013; Kearney, 2013; J. S. Kruger et al., 2015; Walsh, Veri, & Willard, 2015) and then consider health in terms of social justice (Behar-Horenstein et al., 2015; Fletcher & Piemonte, 2017; Tai-Seale, 2001).

Student confidence in the ability to recognize privilege and facilitators and barriers for health, both within themselves and the community, is critical. Without these abilities, service-learning can put students in a position of power over their community partner. Students can view service-learning as a charity case (Taboada, 2011), especially when service-learning programs are implemented by white females within minority or low-income populations, as often is the case. This has the potential to perpetuate the cycle of oppressive education (Freire, 1970) and create a superiority complex of the students, not only for their social identity, but wealth of knowledge they perceive to have compared to the community partner. When students realize their own facilitators and barriers to health as well as the community members', they may be able to better identify with and learn from their community partner.

Two service-learning studies examined undergraduate students who were paired with local youth who differed from the students socially. Galvan and Parker (2011) described a service-learning course for physical education majors who provided a physical activity program for youth of mostly (95%) Latino/a descent. Results of this study revealed that students felt more enlightened to local issues and decreased their stereotypes of the youth. In addition to benefiting from the real-world setting to practice physical activity program skills, the students came to realize that one's

environment does not define them (Galvan & Parker, 2011). In another study, kinesiology undergraduate students worked with local youth who experienced academic difficulties or problems at home to conduct physical activity lessons and mentor the youth. (Walsh et al., 2015). Themes of student learning that arose were improvement of leadership skills, self-fulfillment, self-discovery, and mutual respect between the students and youth. Undergraduate students could relate to the youth and appreciate the fears the youth felt such as failure, homelessness, injury, and unwanted pregnancy.

Service-learning projects working with adult community members also provided similar benefits. Physical therapy and health education students worked together to run a free clinic to gain real-world experience and improve the health of very low-income and homeless clients. The areas that students rated the highest during the post-service questionnaire were that the course provided real-world experience, improved cultural competence, and offered an important service to underserved members of the community (J. S. Kruger et al., 2015). Finally, when tasked with conducting a needs assessment in the community, the students learn about the community, and have a greater appreciation for the barriers for healthy behaviors (Jacquez & Ghantous, 2013).

## **2.5 Relationship Between Self-Efficacy and Skills for Service-Learning**

The relationship between self-efficacy and skills is one that has been previously examined in the service-learning literature as well as in the current study. Because self-efficacy is one's belief that he or she can perform a task (Bandura, 1986), it is hypothesized that when one is confident that he or she can perform the skills associated with service-learning, self-efficacy for service-

learning itself will also be present. Likewise, if confidence in skills for service-learning are improved, self-efficacy may also increase.

Two previous studies have examined the relationship between self-efficacy and skills for service-learning. Richards and Levesque-Bristol (2016) found a strong regression pathway between community service self-efficacy and cultural competence and leadership. Cooke, Pursifull, Jones, and Goodell (2017) also examined the relationship between self-efficacy and skills for service-learning. Cooke et al. (2017) took a layered approach to skills training prior to a service-learning experience with undergraduates and acknowledged the need to increase self-efficacy as well. The skills addressed were interpersonal and discipline-specific, including communication, problem-solving, adapting to real life scenarios and the ability to work as a team. Self-efficacy, according to Cooke et al., plays a role in “successful, mutually beneficial service-learning” (p. 2, 2017). The study results showed that self-efficacy improved as a result of service-learning and when success was attributed to skills versus chance.

## **2.6 Opportunities for Improving Service-Learning Experiences**

Upon examining the literature, opportunities for improvement in the service-learning experience were also discussed. Opportunities for improvement included utilizing a pre-service orientation (Wallace et al., 2017) and group work (Cooke et al., 2015; Cooke & Kemeny, 2014; Powell & Conrad, 2015), which have been able to improve student self-efficacy and skills for service-learning. These improvements can capitalize on the benefits and minimize the challenges for both students and community members. When properly assessed, skills for service-learning can be enhanced through pre-service teaching and learning. Clear expectations between students,

faculty, and community partners can lead to more successful experiences (Paull et al., 2017). An additional area of improvement is to address the unintended consequences that accompany implementing concepts of social justice in service-learning (Butin, 2006; Taboada, 2011).

The practice of integrating a pre-service-learning orientation has been found to improve the service-learning experience for the students (Wallace et al., 2017). In a randomized controlled study with dental students, students were either placed into an orientation group or control group without pre-service orientation. The pre-service orientation was developed based upon feedback from students in previous cohorts who felt underprepared for service-learning and were dissatisfied with the amount of time it took to settle into the new experience. The orientation covered four main areas: communicating with older adults, confidence in relationship building, emotional discomfort, and the settling in period. A focus group was conducted at the end of the service-learning project and responses were compared between students who received the orientation and those who did not. Students who received the orientation beforehand reported to be more confident and better prepared for service-learning than those who did not receive the orientation. They also experienced a shorter settling in period than those who did not receive the orientation. These results suggest that skills can be evaluated, addressed and lead to a more positive service-learning environment.

Group work has also been shown to improve service-learning via increased self-efficacy and confidence in applicable skills. Young children's self-efficacy for learning mathematics improves greater with peer modeling versus teacher modeling (Bandura, 2012) and the same paradigm can be applied in a collegiate service-learning course. A course implemented at West Chester University allowed students fluent in the language of the community partner to work with students without fluency on developing education materials (Bill & Casola, 2016). This approach

improved confidence and decreased anxiety in those students who initially did not feel comfortable communicating with the community partner.

Powell and Conrad (2015) used a DISC (Dominance, Influence, Steadiness and Conscientiousness) personality test to group students in a service project. Groups included at least one member from each personality group so that students had a chance to work with students who were different from themselves. During the group work, students prepared materials for the service project and rehearsed the delivery in effort to master the subject matter. These experiences can be used to improve pre-service self-efficacy. In this study, students responded positively to questions about enhancing confidence, motivation, knowledge, and working with others (Powell & Conrad, 2015). In a different course, prior to implementing a nutrition education program to the community partner, students were given a chance to evaluate videos of others teaching, observed their peers practice delivering lessons, and provided feedback (Cooke et al., 2015). These exercises successfully improved teaching self-efficacy through observation, verbal persuasion and mastery experiences throughout the semester (Cooke et al., 2015).

The preparation phase of service-learning course should include observation and practice on the part of the students to improve self-efficacy prior to engaging with the community partner (Tai-Seale, 2001). Faculty should provide the students with clear guidelines and expectations, as self-efficacy cannot improve when information about a task is vague (Bandura, 2012). Ongoing self-reflection with feedback from peers and faculty was also cited as successful in multiple studies. Cooke and Kemeny (2014) analyzed data from students' written reflections of service-learning. A theme that emerged in the reflections was the benefit of classroom preparation prior to serving in the community. The students had an opportunity to practice the activities they were implementing with the community partner. They were also required to read articles and practice



their teaching skills in the classroom. All three of these pre-service skills training experiences led to successful service-learning (Cooke & Kemeny, 2014).

There are additional opportunities for improvement in service-learning course design. In conjunction with teaching diversity, service-learning often incorporates social justice, a topic to which some students may be resistant (Butin, 2006). Diversity promotes the differences between individuals and populations and that those differences should be accepted and respected. At eighteen years old, the typical age of a college freshman, young adults may not interact with people very different from themselves and feel uncomfortable, particularly in a situation where their interactions are observed and assessed. Social justice in health promotion aims to eliminate disparities, making optimal health accessible for all (Healthy People 2020, 2017). Resistance to addressing social justice may come from a place of inexperience, ignorance, or possibly guilt. If faculty push this agenda too hard and do not let students come to their own realizations, they are not ending the oppressive system (Freire, 1970) that service-learning is fighting against. Along this same line of thinking, a push for the institutionalization of service-learning could diminish the personal transformation for students when it is forced (Butin, 2006). One opportunity to promote social justice and a feeling of equity and inclusion with students is to include their voice in service-learning course design. This can be the first step in guiding them to realize that everyone has a voice that should be heard and valued.

## **2.7 Integrating Student Voice Into Service-Learning**

Denying student voice in the planning phases of service-learning creates the same tone as preventing the community from having a voice in a health promotion program. A needs assessment

is often conducted in health promotion programs and a similar approach can be taken in an academic learning environment. Allan (2013) aligns service-learning with feminist theory. Under this premise, service-learning should be an experience created *with* students rather than *for* students, and all voices should be valued and respected. Research in adult learners (> 24 years old) revealed that this demographic wanted to have a voice in their education and particularly with service-learning wanted to be involved with planning and community partner selection (Reed et al., 2015). The notion that this desire begins at age 24 should be challenged. Traditionally-aged college students (18 – 22 years old) have as much at stake in their education and service-learning experience as adult learners; One could argue more at stake, assuming they have less life and practical experience than adult learners. Affording this same opportunity to students at any age has the potential to enhance their experiences.

Other previous studies with graduate students allowed students to have a voice in the trajectory of their education as it related to service-learning. Gonzalez and Bussey-Jones (2010) conducted a focus-group interview with medical students. The students confirmed that they would prefer to learn about tough issues in healthcare, such as health disparities, through a model that combined hands-on skills with community interaction. Another study with dental students similarly sought out student perspectives for those seeking admittance into a service-learning course (Behar-Horenstein et al., 2015).

Conducting a needs assessment prior to the service-learning experience aims to create a more positive learning environment for the student stakeholders. Levesque-Bristol, Knapp and Fisher (2010) examined service-learning within the framework of self-determination theory. Self-determination theory views human behavior in relationship to autonomy, mastery and relatedness (Deci & Ryan, 1985). When these three needs were met within a service-learning experience, the

learning environment was viewed as more positive and students reported to be more intrinsically motivated for service-learning (Levesque-Bristol et al., 2010). Similarly, Post et al, (2016) conducted focus groups with students after receiving negative feedback on course evaluations that contained a service-learning component. The respondents offered suggestions for improvement in line with self-determination theory, specifically increased autonomy and relatedness. They called for being offered a choice in their project and greater connection to professional development (Post et al., 2016).

Service-learning aims to promote civic engagement. The most widely accessible form of civic engagement in the United States is through our democracy, that is, the right to vote. Including students in the planning stages of service-learning may lead to more civic-minded individuals as they see the value in having their voices heard (Caspersz & Olaru). Caspersz and Olaru (2017) posit that in order to transform students into civic-minded individuals, one must give them the opportunity to be active participants in their education and ask what they truly value in their education. These authors recommend a mixed methods approach using both a focus group and surveys to collect qualitative and quantitative data.

## **2.8 Conclusion**

Service-learning is an academic experience that includes a service-activity that meets an identified community need and integrates student reflection (Bringle & Hatcher, 1996). Service-learning is rooted in John Dewey's experiential learning model (Giles & Eyler, 1994; Whitley & Walsh, 2014), Paulo Freire's consciousness-raising model (1970), and feminist theory (Allan, 1993). Benefits for students include a real-world experience that leads to increased academic

understanding, interpersonal skills, and workforce development. Community members benefit from learning new strategies around specific health topics, and community organizations benefit from free student labor. However, students may feel challenged by a sense of apprehension and unclear expectations, and community organizations face challenges when students are unprepared or unprofessional.

Self-efficacy and confidence in skills for service-learning, as well as their relationships with one another, are important factors to consider. When self-efficacy for service-learning is high, students are more likely to participate and feel successful in a service-learning experience. Confidence in skills include time management and transportation; communication and cultural competence; problem-solving and group work; academic learning and the ability to reflect on learning; recognition of one's own social identity; and recognition of barriers to optimal health. All of these skills are all critical in a service-learning experience for Health and Exercise Science majors.

Student perceptions and expectations are important at the onset of a service-learning course. Even though perceptions may be improved by service, a negative perception may prevent or hinder a student from engaging in service-learning. Including student voice to assess perceptions, self-efficacy and confidence in skills for service-learning, can shape activities to improve attitudes towards service-learning and increase self-efficacy and confidence in skills. The immediate expected outcome would be to create a more successful service-learning experience for students. Additionally, if students are more successful, this may also heighten the reciprocal benefits for community members.

## **3.0 Chapter Three**

### **3.1 Inquiry Questions**

The current study was guided by two overarching inquiry questions:

Question 1: “What are Health and Exercise Science undergraduate students’ perceptions and expectations for service-learning?”

Question 2: “What is the level of Health and Exercise Science undergraduate students’ service-learning self-efficacy and confidence in skills?”

2a. “Is there a correlation between confidence in specific service-learning skills and service-learning self-efficacy?”

### **3.2 Setting**

The setting of this service-learning needs assessment is the lead researcher’s institution of employment in Pittsburgh, Pennsylvania, referred to throughout as the University. The University is situated in a suburban neighborhood next-door to the Catholic sisters who are the founders of the University. Total enrollment is approximately 1,500 students, which includes graduate, undergraduate and English as a Second Language (non-degree) students. Student demographics include a majority white and female. The Health Sciences Department, a member of the Natural and Behavioral Sciences Division, is the specific setting for this needs assessment. The Department is staffed full-time by the faculty researcher and one other faculty member, serving four

undergraduate major fields of study, with approximately 150 total students. Within this Department students can earn a Bachelor of Arts degree in Health Sciences, Exercise and Sports Science, or Medical Imaging. There is also an Associate of Science degree in Radiologic Technology.

### **3.3 Population**

Participants included undergraduate students from Health Sciences and Exercise Science majors. There were 94 potential participants, 18 males and 76 females, including undergraduates from freshman, sophomore, junior and senior years in school. Traditional and adult students were also included, as their perceptions and readiness are important to consider as future stakeholders in a service-learning course.

A single category design was used and purposive sampling (Krueger & Casey, 2015) aimed to ensure both male and female voices were included in their proportion to the total population of the major. In order to reach saturation, the aim was to recruit 30 participants (approximately four focus groups) as recommended by Krueger and Casey (2015). Eligibility to be included in the study included: 1) current student who has been enrolled at the University for at least one semester prior to the study, and 2) student has declared a first or second major of Health Sciences or Exercise Science.

Participants were recruited at the beginning of the University's 2019 spring term, via a recruitment flier sent to their University email address. Of the 94 undergraduates invited, 34 reached out to the study team to participate. Due to weather-related campus closures, one scheduled focus group session had to be cancelled and participants rescheduled, and not all

students who originally volunteered were able to attend, resulting in a total sample size of 26 participants. The sample population was representative of the total population in regards to gender. The sample that participated was 84% female compared to the pool of total participants, which was 81% female. The majority of the sample also reported white as their race/ethnicity. Ten participants attended the first session, 9 attended the second session, and 7 attended the third session.

### **3.4 Instrumentation**

#### **3.4.1 Focus Group**

Students were invited to participate in a focus group to discuss their perceptions and expectations for a service-learning experience. The moderator, who was also the primary researcher, used a semi-structured discussion guide (Appendix B) to lead participants through a discussion about their perceptions of service-learning and their expectations of a service-learning experience to be embedded in a major course in the future. The focus group script was developed for this inquiry based upon previous literature (Jones et al., 2008; Muturi et al., 2013; Reed et al., 2015) and tailored to the specific sample of undergraduate students. The questions were sequenced as recommended by Krueger and Casey (2015) to begin with an opening question that elicits a factual response rather than opinion. From there, the questions flowed from general to more specific, and positive questions preceded negative ones. The discussion guide captured students' previous experiences with service learning and concerns for the future. Example questions

included: “What comes to mind when you think of service-learning?” and “What do you think will be challenging about working with someone in real-life to apply class material you have learned?”

### 3.4.2 Survey

*Self-efficacy for Service Learning.* Self-efficacy for service-learning was assessed with the Community Service Self-Efficacy Scale (CSSES; Appendix C.1). This was a 10 item, 100-point Likert-scale questionnaire previously developed and validated for reliability and internal consistency (Reeb, et al., 1998; 2006; 2010). The scale was originally developed and validated by Reeb et al. (1998) as an evaluation tool to determine individuals’ confidence in making a difference in the community through service. To further the validity of the scale, three additional studies collected responses to the CSSES from two larger samples of undergraduates (n= 394, n= 352) and one sample of adolescents aged 13-17 (n=40) who had participated in service-learning. In each study, the coefficient alpha was above .90 for internal consistency among items, and one of the studies reported test-retest reliability in results (Reeb, 2006). Example items from the CSSES included: “I am confident that I can help individuals in need by participating in community service activities,” with response options ranging from 0 = cannot do at all to 100 = highly certain can do. For the current study, this scale was modified from its original 1-10 scale used in previous studies, to align with other standardized self-efficacy scales (Bandura, 2006).

*Skills for service-learning.* Confidence in skills for service-learning were examined via the Student Service-Learning Inventory (SSLI; Appendix C.2), which was developed specifically for the current study, based upon skills identified in the service-learning literature as necessary for students’ success. This 20 item, 100-point Likert-type scale included questions regarding seven skill areas: (1) time management (Darby et al., 2013; Lau, 2016) and transportation, (4 items)



(Darby et al., 2013); (2) cultural competence and communicating with individuals of different cultures and backgrounds, (4 items) (Begley et al., 2009; Kearney, 2013; Sabo et al., 2015); (3) problem solving and group work (3 items) (Bjerke, 2012; Gray et al., 2017; Keim et al., 2015); (4) ability to learn academically (2 items) (Himelein et al., 2010; Sabo et al., 2015); (5) ability to critically reflect on learning for different audiences (2 items) (Gray et al., 2017); (6) ability to acknowledge one's own social identities, privilege, and its relationship with health (2 items) (Irby-Shasanmi et al., 2012); and (7) recognition of barriers that other populations face for optimal health and health inequities (3 items) (Behar-Horenstein et al., 2015; Brown et al., 2007; Horowitz et al., 2010; Jacquez & Ghantous, 2013; Kearney, 2013; J. S. Kruger et al., 2015; Walsh et al., 2015). Response options ranged from 0-100 (0 = cannot do at all to 100 = highly certain can do). Example items included: "Ability to apply academic content in a real-life setting" and "Ability to recognize inequities in access to optimal health." Items from each skill area were summed and averaged together to provide overall mean scores for each of the seven data points (skill areas).

*Demographics.* Participants provided demographic information that included their gender, race, and year in school (Appendix C.3).

### **3.5 Data Collection**

Data collection occurred over three sessions, where the focus group was conducted first, followed by the participants completing the survey. The focus group discussions each lasted approximately 50 minutes. Focus groups were conducted on campus in a private room and were audio recorded. Participants were identified and referred to by a pseudonym to remain anonymous in the recording and analysis. The faculty researcher moderated the focus group discussions while

a co-moderator (another faculty member) assisted. The co-moderator took notes and provided a brief summary at the conclusion of the discussion. An introductory script (Appendix A) was read and allowed participants to give verbal consent to be interviewed and audio recorded at the onset of the focus group

Following the conclusion of each focus group, participants completed the paper and pencil survey, which lasted approximately 10 minutes. The survey was pilot tested by one University student from the Business Division to estimate timing and assess readability. Participants each received a \$10 gift card as an incentive to participate. This study was determined to not meet the definition of human subjects research by the Institutional Review Board at the University of Pittsburgh, and thus, approval for the project was not required.

## **3.6 Data Analysis**

### **3.6.1 Qualitative Data Analysis**

All focus group sessions were audio-recorded and transcribed verbatim by *Verbal Ink* (Los Angeles, CA). The transcripts were compared to the audio recordings by the lead researcher to verify accuracy. Focus group transcripts were then imported and coded in *Dedoose* (Manhattan Beach, CA), a web-based qualitative data analysis software package. *Dedoose* was used to create a codebook with codes, subcodes, labels, and descriptors.

The researcher used the constant comparative analysis framework (Krueger & Casey, 2015) to analyze the data. The process began by sorting and assigning codes to describe responses to each question. Next, the researcher assigned axial codes where similar data were grouped

together and arranged in patterns or themes in relationship to one another. The researcher assigned *a priori* codes from the literature, as well as additional codes that emerged during analysis. All codes were accepted and included in the codebook. The introductory question was not included in data analysis, as it asked about previous volunteer experience, and in the remainder of the discussions, participants were asked to respond based upon a definition of service-learning that differentiates this pedagogy from volunteering.

### **3.6.2 Quantitative Data Analysis**

Analysis of the survey items included descriptive statistics of demographic data (frequencies and means). Mean, standard deviation and range of overall self-efficacy was calculated as a total score from the CSSES. The 20 items from the SSLI were transformed into seven data points, representing seven key skill areas drawn from the literature. Internal consistency was tested with Cronbach's alpha test and was confirmed at the .7 level for each of the data points with the exception of item six 'Recognition of Self-identify and Relationship with Health' (alpha = .691). The two items included in this data point were: "Ability to recognize my own social identity in regard to race, gender, socioeconomic status, religion, family structure, sexual orientation" and "Ability to recognize how my social identity impacts my health." In consultation with a statistician along with recommendations from literature on quantitative analysis (Tavakol & Dennick, 2011), the decision was made to analyze the two items above as one data point. Descriptive statistics were run for the total SSLI and each of the seven skill areas.

To address inquiry question 2a, Pearson product-moment correlation was used to assess the relationship between community service self-efficacy and confidence in related skills. The

researcher ran separate analyses comparing mean CSSES scores to total SSLI and each of the seven SSLI subscales.

The researcher completed quantitative data analysis using *SPSS Statistics* Version 25 (IBM, Armonk, NY). Statistical significance for all analyses was set at  $p < 0.05$ .

## **4.0 Chapter Four**

### **4.1 Sample Characteristics**

Twenty-six undergraduate students participated in the focus groups and 25 completed the surveys in their entirety. Table 1 displays the sample characteristics of these participants. The sample was 84% (n=22) female. The majority (61%) of the sample was white (n=16), followed by black (n=7), other race/ethnicity (n=1), more than one race (n=1), and missing (n=1). For year in school, the majority (42%) of participants were seniors (n=11), followed by sophomores (n=6), freshmen (n=5), and juniors (n=3).

**Table 1 Characteristics of n=26 undergraduate students attending focus groups**

<b>Characteristic</b>		<b>n</b>	<b>%</b>
Year in School	Freshman	5	19
	Sophomore	6	23
	Junior	3	12
	Senior	11	42
	No response	1	4
Gender	Female	22	84
	Male	3	12
	No Response	1	4
Race/Ethnicity	Black or African American	7	27
	White	16	61
	Other	1	4
	More than one	1	4
	No Response	1	4

## **4.2 Survey Results**

### **4.2.1 Self-Efficacy for Service-Learning**

The mean overall self-efficacy score from the CSSSES scale was  $89.72 \pm 12.72$ , with a response range of 52 (min) to 100 (max) (Table 2).

## 4.2.2 Confidence in Skills for Service-Learning

Table 2 reports the means, standard deviations, and ranges for the total SSLI score and for each of the seven skill areas (subscales). Overall, the mean confidence for service-learning skills was  $85.62 \pm 12.20$ , with a response range of 52 (min) to 100 (max). The mean confidence level for each of the 7 subscales was as follows: (1) Time Management and Transportation was  $81.44 \pm 17.54$  (range 22.50-100); (2) Cultural Competence and Communication was  $79.00 \pm 21.29$  (range 15.00-100); (3) Problem Solving and Group work was  $86.13 \pm 14.99$  (range 40-100); (4) Ability for Academic Learning was  $90.80 \pm 10.57$  (range 55-100); (4) Ability to Reflect on Learning was  $90.00 \pm 10.60$  (range 60-100); (5) Recognition of Own Identity and Relationship with Health was  $93.00 \pm 9.00$  (range 70-100); and (7) Ability to Recognize Barriers to Optimal Health was  $87.87 \pm 12.39$  (range 53.33-100).

**Table 2 Community Service Self-Efficacy Scale (CSSES) and Student Service-Learning Inventory (SSLI) scores (n=25)**

<b>Variable</b>	<b>Mean</b>	<b>SD</b>	<b>Range</b>
Total CSSES	89.72	12.72	52.00-100
Total SSLI	85.62	12.20	52.00-100
<b>SSLI Skill Areas:</b>			
Time management and Transportation	81.44	17.54	22.50-100
Cultural Competence and Communication	79.00	21.29	15.00-100
Problem Solving and Group Work	86.13	14.99	40.00-100
Academic Learning	90.80	10.57	55.00-100
Reflect on Academic Learning	90.00	10.60	60.00-100
Recognition of Self-identify and Relationship with Health	93.00	9.00	70.00-100
Recognition of Barriers to Optimal Health	87.87	12.39	53.33-100

NOTE: SD, Standard Deviation; CSSES, Community Service Self-Efficacy Scale (10 items); SSLI, Student Service-Learning Inventory (20 items); Scales range from 0-100.

#### **4.2.3 Relationship Between Self-Efficacy and Skills for Service-Learning**

A Pearson product-moment correlation was computed to assess the relationship between (1) total CSSES score and total SSLI score, and (2) total CSSES score and each of the seven skill



areas from the SSLI (Table 3). Mean SSLI showed a strong, positive correlation to mean community service self-efficacy ( $r=0.812$ ;  $p<0.001$ ). The skill area with the strongest relationship with self-efficacy was Problem Solving and Group Work ( $r=0.872$ ;  $p<0.001$ ). Confidence in cultural competence and communication skills was strongly correlated with self-efficacy ( $r=0.742$ ;  $p<0.001$ ). Next, also with a strong, positive correlation, participants' ability to recognize barriers to optimal health was associated with self-efficacy for service-learning. ( $r=0.738$ ;  $p<0.001$ ). Time Management and Transportation also showed a large effect size ( $r=0.565$ ;  $p=0.003$ ) Finally, both skills associated with learning were correlated with self-efficacy for service-learning (Ability for Academic Learning  $r= 0.551$ ;  $p=0.004$ ; and Ability to Reflect on Academic Learning  $r=0.514$ ;  $p=0.009$ ).

**Table 3 Correlation between service-learning self-efficacy and confidence in skill areas (n=25)**

	Total CSSES	Total SSLI	Time Management and Transportation	Cultural Competence and Communication	Problem Solving and Group Work	Academic Learning	Reflect on Academic Learning	Recognition of self-identify/relationship with health	Recognition of barriers to optimal health
Total CSSES	1								
Total SSLI	<b>.812***</b>	1							
Time Management and Transportation	<b>.565**</b>	.813	1						
Cultural Competence and Communication	<b>.742***</b>	.884	.662	1					
Problem Solving and Group Work	<b>.872***</b>	.933	.729	.775	1				
Academic Learning	<b>.551**</b>	.683	.389	.431	.660	1			
Reflect on Academic Learning	<b>.514**</b>	.657	.275	.459	.629	.799	1		
Recognition of self-identify/relationship with health	.336	.675	.536	.515	.502	.410	.546	1	
Recognition of barriers to optimal health	<b>.738***</b>	.774	.421	.545	.771	.739	.681	.587	1

Note: p-values calculated for variables relevant to Research question 2a: relationship between self-efficacy and confidence in skills

(Column 1, only). Bolded fonts indicate statistically significant relationships as follows: \*p<0.05; \*\* p<0.01; \*\*\* p<0.001

### **4.3 Summary of Focus Group Findings**

Analysis of the focus group discussions revealed three overarching themes related to undergraduate students' perceptions and expectations for service-learning. Those three themes focused on students perceived: (1) benefits, (2) challenges, and (3) opportunities for service-learning. Table 4 displays more information regarding the themes and categories resulting from the focus group analysis.

**Table 4 Emergent themes and categories from focus groups with n=26 undergraduate students**

<b>Themes</b>	<b>Core Categories</b>	<b>Categories</b>
<b>Theme 1:</b> Students and the community reap the benefits of service-learning.	<ul style="list-style-type: none"> <li>• Benefits to self in the service-learning experience</li> <li>• Benefits to the community in the service-learning experience</li> </ul>	<ul style="list-style-type: none"> <li>• Learning</li> <li>• Gratification</li> <li>• Professional development</li> <li>• Confidence</li> <li>• Labor</li> <li>• Resources</li> </ul>
<b>Theme 2:</b> Facing adversity: challenges of service-learning	<ul style="list-style-type: none"> <li>• Challenges in the service-learning experience</li> </ul>	<ul style="list-style-type: none"> <li>• Logistics</li> <li>• Apprehension</li> </ul>
<b>Theme 3:</b> There is always room for improvement.	<ul style="list-style-type: none"> <li>• Opportunities and recommendations for improving the service-learning experience</li> </ul>	<ul style="list-style-type: none"> <li>• Student voice</li> <li>• Student preparation</li> <li>• Real-life experiences</li> </ul>

#### **4.3.1 Theme 1: Undergraduates and the Community Reap the Benefits of Service-Learning**

The focus group discussions clearly demonstrated that participants find service-learning to provide a benefit. Findings revealed two core categories: benefits to self (the students), as well as benefits to the community.

#### 4.3.1.1 Benefits to Self

Participants were able to identify many benefits that they would expect to gain as a result of participating in service-learning in their majors of Health and Exercise Science. Four subcategories emerged within benefits to self: learning, gratification, professional development, and confidence.

##### *Learning*

Participants believed that learning would occur through the service-learning experience in the forms of academic knowledge, interpersonal skills, problem-solving skills, and hands-on skills. Through service-learning, they expected to make better connections between their coursework and the academic theories they are learning in the classroom. One participant described that connection as follows:

*Maybe be able to apply what you're learning in a textbook to what you're seeing there (community site) or vice versa. It could kind of – you could see the relation between the two (Focus Group [FG] 2).*

In addition to academic learning, participants expected that service-learning would provide the chance to develop bedside manner and other interpersonal skills. They believed interactions with community members would provide an opportunity to learn to build relationships and rapport. This is a skill the participants identified as necessary in the health and exercise professions:

*... you need people skills in our fields. So, in the academic setting, you get book smarts, but when you're actually out among people, you develop being able to relate to the people you're working with...and it's something really important that you can't just get in an academic setting (FG 1).*

The participants also acknowledged that service-learning would introduce them to people who are different from themselves and outside of their current social circles. This experience would provide a chance to learn from different perspectives and the experiences of the community members. One participant described a current deficit: not being able to communicate with other types of populations, noting that service-learning would introduce them to more diverse perspectives. This participant said:

*They (students) don't know how to talk to people different from themselves. So, having that experience, going to communities seeing people other than you're used to... (FG 3).*

Another participant described how they can learn to adapt to different populations:

*You have to kind of alter yourself in a way. So, learning how to handle different types of personalities, different people, different conditions is definitely useful (FG 3).*

In addition to relationship building, participants agreed that interacting with community members through service-learning would improve communication skills with a variety of populations including children, older adults, those with illnesses, and those whose first language is different from their own.

*I think communication is a big thing that a lot of people don't have or have a good enough skill of that, you know, those could be enhanced or developed (FG 3).*

Participants believed that the hands-on experience of service-learning provides a benefit itself. They frequently spoke about hands-on learning experiences being desired by themselves and their peers:

*They (students) don't want to just sit there and listen to someone talk to them. They want like the hands-on experience to actually do something (FG 3).*

*I think what a lot of students look for is like hands on (FG 3).*

*But for me I'm more of a hands-on learner (FG 2).*

The participants believed service learning would lead to improvement of skills associated with hands-on experience, including the ability to think on one's feet and problem solve, along with interacting and communicating. The hands-on experience was expected to be a benefit because the participants would have the opportunity to practice what they are learning in the classroom in real-life scenarios with real people. One participant summed this up as:

*...when you're actually in a situation where there's real life consequences and pressures (FG 2).*

The participants largely believed that the hands-on experience of service-learning would be beneficial, because it would force them to think on their feet and lead to increased ability to problem solve in real time. Thinking on one's feet was described as the ability to think and react quickly. They said this ability is required and anticipated to be enhanced by engaging in service-learning.

*(Service-learning) helps people be able to critically think, because I know that's a big problem area a lot of people run into, is being able to critically think on the spot. So, I think it would help people be able to critically think throughout their process (FG 1).*

Problem solving was described synonymously by participants as critical thinking and discovering new ways to approach a situation. Participants also described problem-solving as a



benefit of service-learning, and a way to learn from mistakes they may make. Two excerpts below describe how the participants viewed problem-solving as a benefit:

*I think you learn a lot more from the mistakes or like a difficult situation than you do from your successes in any situation (FG 2).*

*I mean there's always- I guess not always, but there's usually a solution. It might not be as easy as you initially thought you were getting yourself into, but you can kind of work around it (FG 2).*

### **Gratification**

Gratification was one of the most frequently mentioned aspects of benefits to self. The participants felt service-learning was associated with a feeling of self-satisfaction or euphoria. They often cited feeling good about oneself for the service they provided, or that they were happy to help. This feeling of gratification not only came from services provided to other people, but participants also felt gratification when they believed their service improved the natural environment as well. Regarding the gratification associated with helping other people, one participant said the following:

*The smile you see on their face. The fact that you feel you're helpful. You're helping. It makes you feel proud of you and proud of what you are doing... You're doing something right (FG 2).*

As previously stated, gratification also came from aiding the environment. One participant described this benefit as follows:

*It's just great to know that you're like, for one day like, you're going to be able to, like, say like, the birds are alive because I was able to plant a tree (FG 3).*

One participant specifically stated that service-learning should be more selfless and motivated simply by the opportunity to help others.

*Helping people, just altruistic helping others that need it. I think everybody should experience that (FG 2).*

Participants viewed service-learning as helping others in terms of charity. Participants often described the others that they helped or would help in the future are in some way worse off than themselves. Charity extended to those in poor health, socially isolated, lacking insurance, low socioeconomic status, and/or those lacking the knowledge or other resource that the students possess. Example excerpts regarding the sentiment of charity included:

*It was nice just getting something (food) that was going to be thrown away to somebody that truly needs it (FG 3).*

*(We) could treat people like that didn't have insurance or something  
(FG 1).*

*So, they, um, took like different medical supplies that the hospitals  
don't use or like not in need of anymore and they send us to like different  
places like in Africa or places that don't have the resources that we have (FG  
3).*

*I think you can learn a lot about yourself through the service learning.  
Because you get to see how other people are less fortunate and how lucky you  
are in your own way (FG 2).*

### ***Professional Development***

Participants articulated the benefits of service-learning to themselves currently, but also discussed extensively how service-learning will benefit their future. One quote sums up this category:

*And I think, the service learning now is what impacts us as leaders and  
as health care professions later. So, what, what you're learning right now and  
seeing from others will affect your approach at a later time (FG 2).*

Codes that displayed this benefit were professional development and confidence. Professional development was mentioned frequently throughout all three focus groups. Participants identified service-learning as a gateway towards graduate school and job placement. They described this both as a way to learn and practice skills, as well as a networking opportunity. In respect to earning admittance into graduate school or entering the workforce, participants believed that service-learning would put them at advantage, or give them a “foot in the door.” One participant hoped for the following:

*It would just be an easy way to get your foot in the door like you're doing hours at (healthcare provider) or wherever. They know you. They know how you work so it would be easier to just go back to them after you graduate and look for a real job (FG 2).*

Service-learning was also described as a means to accumulate necessary field hours for graduate school applications, while earning undergraduate credit. Professional development was viewed as a dangling carrot; service-learning is a means to an end. Two participants described the following in relation to reaching their professional development goals:

*I think a better motivation would be getting into graduate school and being able to work (FG 1).*

*I think it also can keep, like, the end goal in mind (FG 2).*

In relation to professional development, participants also believed they could learn about career choices through service-learning, which aided with decision making. Participants agreed that service-learning provided an opportunity to get a glimpse into a career field and they could subsequently decide if they are pursuing the correct major. Conversely, service-learning may open their eyes to opportunities they were not previously aware of. Viewing decision-making as a motivator, the participants agreed that service-learning is less of a commitment than an internship; and if done early in their college years and integrated into a course, it provides valuable insight into confirming or refuting the decisions they have made thus far. The following excerpts described how service-learning aids in decision-making:

*I think it would allow you to explore your major without making any commitments; like getting a job in something or an internship is kind of, like, a commitment (FG 2).*

*Because so many people are studying something that they think they want and then when they graduate, they get their bachelors or whatever and they don't like their job. So, it, I think it's really helpful to be able to have that experience in the field and know kind of what you're getting into (FG 1).*

Participants also believed that service-learning would allow them to feel more confident in their future careers. This manifested from exposure to real-life situations and different populations, or the opportunity to have practiced various skills. One participant made the following connection:

*It can definitely give you confidence because like it's something you've seen before or some environment you've been in before (FG 2).*

#### **4.3.1.2 Benefits to Community**

The focus group participants articulated that service-learning should lead to benefits for both themselves as the students, as well as the community members with whom they partner. The core category of benefits to the community included the subcategories of resources and labor.

The resource subcategory described the tangible items that may benefit community members, such as medical supplies and spaces for exercise, as well as intangible items, such as knowledge and companionship. Again, charity was seen here in that the community lacks resources and the University was able to offer or share resources with the community. For example:

*You have to be in our environment or come and get (knowledge) in a college environment” (FG 1).*

One participant suggested providing space on campus for children to exercise as an idea for service-learning in the future:

*Because a lot of kids like want to exercise, or like, need to exercise but they don't have like, a very comfortable living area or like, no parks or*

*anything like that. So maybe, like, service learning could provide them a better place to become more active (FG 3).*

Knowledge as a benefit to the community was described as the knowledge the students have amassed from their time in college that they can impart to the community. They also associated knowledge with the concept of charity. Similar to tangible resources, participants believed knowledge is something that the community partners may need and that they could provide. Knowledge is something they are privileged to possess and they can use to educate the community.

*Like the physical activity guidelines that have recently changed... I feel like I'm the advocate for that, because they don't have the opportunity to learn what we learn here, and the type of knowledge doesn't get to their level. You have to get it in a college environment (FG 1).*

While participants viewed interacting and communicating as benefits to self as a result of service-learning, companionship was the frequently described benefit to the community. This code was used when the participants discussed providing company for those who are socially isolated, particularly older adults. Participants perceived that community members would feel like someone cares for them, would have someone to talk to, or would be instilled with a sense of hope, as a result of this companionship. One participant described her own perception of working with older adults as followed:

*They all (older adults) really honestly just love having somebody younger around to talk to (FG 3).*

The final community benefit was free labor, a benefit not to individual community members, but to the organizations. Participants believed that many organizations needed additional workers and through service-learning they could help to fill this labor gap. One participant described this community benefit:

*You would be helping the facility you're at, the hospital. Maybe they need extra hands so being there and being able to pick up extra shifts or things like that is also helping them (FG 2).*

#### **4.3.2 Theme 2: Facing Adversity: Challenges of Service-Learning**

Participants also acknowledged that service-learning in the Health and Exercise Science majors would present personal challenges and challenges interacting with community members. The theme of challenges contained two subcategories: logistics and apprehension.

##### **4.3.2.1 Logistics**

This sample of undergraduate students believed that in terms of logistics, time management, transportation, background check clearances, finding sites, community cooperation,



and group work, may all pose potential challenges. Time management was viewed as challenge because many believed incorporating service-learning into the major would be in addition to their current course load and other existing obligations such as jobs or athletics. They felt service-learning would require more time and effort outside of class on their part. One participant reflected on how time management may impact them as students:

*... not only are you doing your school work but you have to juggle now a required service-learning for your major. So that might be a time management problem for some students (FG 2).*

Transportation was cited as a barrier in terms of not having access to transportation (e.g., personal vehicle) and living further from the service-learning site or from campus where transportation may be provided. Therefore, not only lack of personal vehicles or public transportation, but the distance one may have to travel or the time of day in which one may travel, were components of the transportation challenge. Example quotes that displayed transportation challenges included:

*But they were always geared toward like people who live on campus. Not like commuters which also was a problem. I agree with (name), especially also being a commuter. A lot of them it's like hey, come back to campus. Well, I live 40 minutes away so that's not very fun. So, if it wasn't – like it's hard for me to always find one that around the time that I was even here on campus*

*(FG 3).*

*(students) who don't have a car, and asking some – asking some students to take public transportation may not be ethical (FG 1).*

Another logistical challenge that was discussed across the focus groups was the requirement for clearances and background checks. The participants connected service-learning in the Health and Exercise Sciences majors with hands-on learning with people from the community, therefore, they believed that child abuse clearances and FBI background checks would be necessary. Participants described the difficulty in knowing which clearances would be required and the time frame in which one needs to complete applications:

*There's a bunch of FBI clearances that you'll have to go through. So, I guess understanding which ones that we actually have to complete.... And then the timespan that we should complete them in order to be able to do the service learning (FG 2).*

One participant offered that they would need to obtain these eventually for work purposes, and that having them now may even open other opportunities for job or internship experiences while in school.

*I think that like if you get students to get their clearances it will almost push them so they already have them so it's easier or makes it better for them to get into a certain area. (FG 3).*

In the past when participants had to find service-learning sites on their own, they found this to be challenging. Many did not know where to begin to find a site because they did not have the appropriate network or were not from the geographical area of the University. One participant from outside of the United States described her challenge when tasked with arranging a service-learning site on her own:

*Yeah, for me, it's sort of a challenge, because I didn't know like where should I go, and also, the language was like really hard for me (FG 1).*

They also described potential difficulties of locating relevant sites that permit student engagement. They believed that the health context and privacy policies added a layer of difficulty:

*It can be hard to find on your own sometimes...finding a place that will allow students to come in (FG 2).*

Participants anticipated that community cooperation could be a challenge. Participants described hypothetical instances in which a community partner may not want to participate in a

prearranged service activity. Participants believed that this could negatively impact their experiences and perhaps final grade.

*The challenge would be on us if the people whom we're giving service to don't comply, or you know, give us a hard time. So that would be stressful to us. You want to help but someone doesn't want to be helped or they just have their own personal issues they're facing (FG 2).*

An additional challenge that arose with community interactions in service-learning was trust. Participants cited hypothetical instances in which they believed they may have difficulty establishing or regaining trust from a community member or a site supervisor. Reasons this could be a challenge were that the community members may not take students seriously or would be concerned for their own privacy. One participant expressed this concern as follows:

*It's hard to gain trust from patients in general, and then being a student and all this, it's even harder to gain their trust (FG 1).*

Participants also believed that abiding by their scope of practice could be a challenge. They were well aware that there are boundaries in health and exercise settings. The challenge was when they may know information, but are not permitted to share. This included both personal medical information as well as suggested treatments. They felt it would be equivalent to lying to say they

did not know an answer, when in fact they did. One participant described a previous difficulty she had related to this challenge:

*And another thing to add, like my experience I had like when patients were like, 'oh, what's my x-ray say?' Like if I have a break or something. You can't tell them. So, you're lying to them. Like you know you're lying to them. And they're like, 'oh, come on, just like tell me, I know you know'. But we couldn't tell them at all, because that's not our place to tell them, because we're not the radiologist. We're not, like, allowed. We're out of practice if we were to tell them (FG 1).*

In addition to challenges of working with community members, participants also expected there to be challenges when working alongside their peers. These challenges may arise with uncooperative group members or when group members do not learn at the same rate. One participant described how learning at different rates may present a challenge in a service-learning environment:

*That becomes conflict, then, because obviously not everybody learns at the same pace, and then, you can't apply the same thing, and everybody just has a different learning, and critically thinking abilities (FG 1).*

#### 4.3.2.2 Apprehension

Participants reported that engaging in a service-learning experience is often unfamiliar and therefore brings a level of discomfort and apprehension. Stress and fear were emotions that described this challenge. Stress was described in terms of how they may appear (negatively) to others, or a sense of self-consciousness. Fear was specifically discussed in terms of a fear of doing something incorrectly that may have a lasting effect on the community partner they are working with. One participant shared her fear and apprehension:

*I think that another thing is that personally I'm very eager to help people and if I want to give suggestions.... So, like what if you know something that helped you in the past or that you experienced a similar issue...and you just – you know, someone could go home, take your advice and it could go wrong and ...you feel bad, you know (FG 2).*

One participant described her emotions entering a new service-learning experience as follows:

*I was like so stressed. I thought maybe the students would ask me questions according to, according to what (supervisor) prepared me for. But they ask questions about everything (FG 2).*

The participants also believed that their inexperience or status as students were a cause of apprehension. They did not feel comfortable or deserving of a chance to learn in a community setting. This challenge, a feeling of insecurity, was described by a participant:

*You don't feel like you deserve to be in that (setting), because you don't have those skills yet (FG 1).*

Apprehension extended into a fear of risking the safety of community members due to their inexperience. The students anticipated, for example, that physical injury of the community members could occur as a result of engaging in service-learning with them. A participant described a hypothetical scenario of this challenge:

*Maybe you're really trying to help the person and something happens. You will feel bad about it. Maybe the person can fall and break one of his arms and you would really feel bad about it (FG 2).*

Participants felt the apprehension would extend to the community members as well. They felt they would not be taken seriously or that community members would be hesitant to engage with them because they are students and lack the experience of seasoned healthcare professionals. The following quote describes a possible scenario:

*Or they can ask you questions you don't even know (the answer) to.  
...because you're still learning, so you don't know the answer (FG 1).*

And another participant went on to speculate how this could lead to further challenges:

*Like (name) was saying, because you can't answer the question that a  
patient has, it leaves a negative effect on them, which makes it hard for them to  
trust any provider for them (FG 1).*

### **4.3.3 Theme 3: There is Always Room for Improvement**

The final theme was framed as a call to action. This theme described student recommendations for how a service-learning experience could be improved and result in greater benefits for students and help them to overcome the challenges. Core categories that emerged in this theme included: inclusion of the students' voice in the planning stages, student preparation for service-learning, and real-life experiences.

#### **4.3.3.1 Student Voice**

Overwhelmingly, participants wanted to have a voice in their education, and specifically they wanted their voices heard when it comes to designing service-learning experiences. They wanted to have a say in the specific activities, populations, and settings they would be involved with. One participant expressed this need for their voices to be heard with a tone of frustration:



*I think a lot of them (faculty) don't take into consideration that we want to be involved in our education.... So, I think it would be a very successful idea if you involve us. Don't just tell us we have to do something. Involve us, ask us, get our opinions. We are people too and we do have opinions (FG 3).*

Allowing undergraduates to have a voice also had the potential to lower the feelings of resentment towards mandated service. The status quo of education without representation was expressed by this participant as:

*You know, it's just like you have to do this. [Laughs] I think that's why a lot of us hate it is we kind of feel like, like we're pushed into it (FG 3).*

Additional subcategories of autonomy and guided choices emerged along with student voice. Participants wanted autonomy in deciding where and with whom they will serve, however, they did want that choice to be guided. Participants previously discussed a difficulty in finding service-learning sites, therefore, suggested a list of pre-approved settings or sites (e.g., clinics, agencies, organizations) they are able to choose from. The following quote sums up the need for guidance, choice, and autonomy, and interest in the experience:

*So, you give us like 20 options and I'll choose the one that, you know, best suits me (FG 3).*

Participants also wanted variety in their choices and experiences. Variety referred to a range of selections they can make for a service-learning experience and variety in the actual experiences. They reported wanting exposure to different populations, settings, and activities. Variety to the participants offered more learning opportunities and would aid in keeping them engaged. Three examples of their recommendations for variety included:

*I'm not really sure what population I would like to work with. So, I think maybe like bouncing off of, you know, different areas and different populations, older people, children. You know, I think that would be very beneficial to figure out (FG 2).*

*I would say different experiences. They give us the same service learning projects all the time. It's like the same year-round. Uh, if they can do something different and more interesting (FG 3).*

*I think I'd like to mix it up a little bit too. Like I'm the type of person who gets bored very easily (FG 3).*

Participants described being more motivated to complete service-learning when it incorporated something they are interested in. They said they would prefer this type of learning in a major course versus a general education course. One participant plainly stated:

*I like science. So, having that interest. So, like if it was a health science base I think a lot of us would have an interest in it. But that definitely is a big motivator for me is if I'm interested in it or not. If I'm not, I'm not going to give it my all (FG 3).*

Participants also frequently identified populations and settings they were interested in engaging in service with. Populations mentioned included children, college students, older adults, and faculty members. Participants also described ranges of abilities in those they would be interested in working with, including healthy athletes, individuals with sports injuries, or children with disabilities. When discussing settings, many participants spoke of clinical settings as a place of interest, this included hospitals and outpatient facilities for various exercise or nutrition-based activities. The following quotes are examples of how participants expressed their desire to work with specific populations or in specific settings:

*I love to work with those that have experienced sports injuries (FG 2).*

*I think my ideal service learning would be working with old people, like elderly people (FG 2).*

*So, I feel like for me it's just that hospital environment is the best for me. I just, I want to be there, you know (FG 2).*

#### **4.3.3.2 Student Preparation for Service-Learning**

The next area participants felt needed improvement was specific aspects regarding undergraduate student preparation for service-learning. This included knowing the tasks involved with a service-learning activity, group work, modeling, and in-class scenarios.

Participants wanted instruction about what was expected of them prior to the experience. They would also like to know what they should expect from the community partner. Participants expressed the need for detailed instructions:

*I also think before everyone to go for service learning there should be a good explanation of what you have to do. Because sometimes they don't really explain to you (FG 2).*

They also suggested receiving tips of how to navigate challenging situations, for example:

*Warn us about like what could go wrong and like prepare us for like the things like someone steps on a scale and it doesn't read because they're obese (FG 3).*

Participants also believed that having the faculty present during a service-learning activity would make them feel more prepared and supported. The faculty member would be on-site to answer questions or clear up any confusion. This is something most agreed was not the status quo—that the faculty who assigned a service-learning activity were not present during the activity. The following quote sums up the need for instruction and faculty presence:

*Participant: So, um, I feel like I actually haven't often had instruction. I don't know if anybody else feels that way. It's kind of you pick something and you show up.*

*Moderator: Do you think that – so would instruction prior to help more?*

*Participant: I think it would definitely help us understand why we're even doing it.*

*Moderator: Mm-hmm.*

*Participant: Instead of like hey, you've got to write this paper.*

*Moderator: Right.*

*Participant: .... some of the (Faculty) do some of the service learnings.  
But (not my professor for the [general education] classes). Like I'm not doing  
it with them (FG 3).*

Participants suggested they should ease into a service-learning experience. Starting slow described the expectation that they will be less nervous and eventually more successful if they begin with less responsibility, have an opportunity to acclimate, and ultimately build confidence in their skills and surroundings. One participant described how this would benefit students and community members:

*Maybe start with less responsibilities, because it would be less  
strenuous for beginners and less nerve wracking for someone you're working  
with (FG 1).*

Participants also suggested partnering with those who may be more cooperative or in better health such as other faculty members or student-athletes in the beginning of a service-learning course:

*I think with the hands-on aspect like with the health assessment class or  
like the exercise physiology class to get like the hands on maybe see if the*

*athletes would volunteer their time and try doing some of it to the athletes because they're athletes. Like obviously they're most likely in pretty good health, they have pretty good like muscle mass and stuff or even some professors too who are willing to volunteer their time for the students (FG 3).*

Group work, modeling, and in-class scenarios were suggested ways to ease into a service-learning experience and feel more confident working with a community partner. Group work described engaging in service with one or more peers. Although, this was also included as a challenge, participants felt that working with others will make them more comfortable in a new experience. For example, one participant described how working with a peer may reduce some of the nervousness:

*I know that when we first started doing anything volunteer or stepping out helping people, a lot of people get nervous doing – like going to somewhere new. I wonder if lower levels, (of nervousness would occur with) a buddy system kind of thing (FG 1).*

Participants thought that group work would also allow them to learn from their peers through modeling. For example, in addition to faculty and community members, peers can also be a source of feedback:

*You're doing it as a class so you can also get that feedback from your classmates (FG 3).*

Another participant described using modeling to his benefit when he was unsure of the service-learning task:

*I'm glad I showed up early to watch the group before me (FG 1).*

The final recommendation for student preparation was in-class scenarios. Participants described using mock or practice scenarios in the classroom prior to engaging in service-learning with community members:

*Maybe give like different situations and see like how you would react within that time. Like a lot of teachers like don't give you like situations (FG 3).*

One participant even suggested that they should be tested on skills they will use in service-learning prior to the experience. This scenario would mimic the nervousness they may feel when using the skills in the community and/or provide the confidence to feel less nervous:

*...it would make us more confident. Being tested on our skills as like a hands-on exam, in a sense, before we go out there (FG 1).*



#### 4.3.3.3 Real-Life Experiences

The participants strongly recommended that the service-learning experience needed to be clearly connected with academics and include hands-on experiences to be effective. Participants indicated that for service-learning to be meaningful and perceived as beneficial, it needs to have a clear tie to what they are learning in the classroom. Simultaneous service and classroom learning will enhance their skills and understanding of content. One participant said:

*I think people learn best practicing what they're learning about in the classroom, and like along with what everyone else has been saying about learning people skills (FG 1).*

Participants wanted interactions with community members and hands-on experiences. A service-learning experience without a direct interaction with the community member in which the project is intended to benefit will fall short to these students. One participant described her disappointment when service-learning did not involve interactions with the community members:

*When we went to drop off the food it was very depersonalized. Um, we just dropped it off with somebody that was just a worker. So, you didn't even get to kind of like see who it was going to. I mean you have a general idea but it would have kind of nice to maybe meet some people or see some people around instead of just going there and being like oh hey, here's the food and then bye (FG 3).*

They expected the greatest outcomes of service-learning to occur when they are working in-person with community members and are actively engaged in the concepts they are learning about in the classroom. Participants also suggested that these experiences should begin earlier in their undergraduate programs. Across all three focus group discussions, participants believed that service-learning directly tied to a course in the major beginning as early as their freshmen year would improve their academic experience and future potential.

The focus groups provided a lot of rich, descriptive data on students' previous experiences with service-learning, their expectations, perceived benefits and challenges, and what they recommended for the future.

## **5.0 Chapter Five**

### **5.1 Introduction**

The purpose of this mixed methods needs assessment was to learn about undergraduates' perceptions and expectations, self-efficacy, and baseline capacity for service-learning. The survey results revealed that participants had a relatively high baseline self-efficacy and confidence in skills for service-learning and a strong, positive correlation between self-efficacy and skills. The key findings from the 26 participants who engaged in the focus groups revealed that undergraduates perceived three themes associated with service-learning: benefits, challenges and opportunities for improvement. The data that have been collected and analyzed via surveys and focus groups will serve to better encourage and prepare students for successful service-learning experiences in the future.

### **5.2 Self-Efficacy for Service-Learning**

Overall, participants had a high mean self-efficacy for service-learning. The high level reported is unsurprising, given that all study participants had previously participated in service-learning as an undergraduate course requirement, an extracurricular activity, in high school, or in more than one of these areas. These findings are consistent with other studies that examined self-efficacy via the CSSES. Reeb et al. (1998) found that baseline self-efficacy and retrospective self-efficacy for service-learning was high as a result of participation in a service-learning course. The

authors predicted that this may lead to a ceiling effect for improvement of self-efficacy as a result of an intervention.

On the other hand, Cooke et al. (2015) did find improvement in self-efficacy between a service-learning group and control. Both groups were enrolled in upper-level nutrition courses; the community nutrition group included a service-learning component, whereas the public health nutrition course did not include service-learning. The service-learning group experienced significant increases at mid- and post-service data collection in their perceived self-efficacy for nutrition education over baseline compared to the control group, as well as between the midpoint and end. The survey instrument used to demonstrate this improvement was adapted from previously validated surveys including the: Nutrition Teaching Self Efficacy Scale (Brenowitz & Tuttle, 2003), General Self Efficacy Scale (Imam, 2007) and College Teaching Self Efficacy Scale (Prieto, 2005). As one of the few studies reviewed with a control arm, the potential for significant improvements in self-efficacy as a result of an intervention should not be discounted.

Self-efficacy is theorized to be a predictor to behavior. Richards and Levesque-Bristol (2016) found that community service self-efficacy showed the strongest relationship toward community engagement behaviors. One area in which the literature and the current study are at odds with one in other in terms of community service self-efficacy is in gender responses. Reeb et al. (1998) consistently found females to score higher than males on the CSSSES. Male participants in the current study scored higher ( $93.00 \pm 8.1$ ) on the scale versus females ( $89.27 \pm 13.3$ ). The difference in male versus female scores in this study may be attributed to small number of males in the sample ( $n=3$ ). Male scores also had a smaller range than female scores (84-100 vs. 52-100, respectively), which lowered the mean score for females.

### 5.3 Confidence for Service-Learning Skills

Overall mean SSLI and means for the skill areas, were also relatively high in the sample. As with self-efficacy, mean scores may be attributable to previous service-learning experience. On the other hand, the focus group discussion was held prior to completing the survey, which may have resulted in a response bias from the participants. This could be due to the concepts being fresher or they may have answered in a way they perceived to be socially or academically desirable to the lead researcher who moderated the sessions and was an instructor with whom the participants were familiar.

Participants in this study rated their confidence in certain skills higher than the mean for total skills. Specifically, students rated high their skills for academic learning, reflecting on academic learning, problem solving and group work, and ability to recognize barriers to optimal health. The baseline score for these skills was high, but improvement in these skill areas have been shown as an outcome in the service-learning literature. However, oftentimes this data was only collected post-service; therefore; a true mediating effect of service-learning on the skills could not be demonstrated. Data showing improvement in learning academic content has previously been collected from course evaluations (Horowitz et al., 2010) and post-service surveys (Bjerke, 2013), and learning about health and diversity was demonstrated on post-service surveys. (Jacquez & Ghantous, 2013). Likewise, undergraduate students reported improvement in skills for group work (Himelein et al., 2010) and problem-solving skills (Bjerke, 2013) on a survey administered post-service. Student recall was relied upon to demonstrate improvements in critical thinking skills as a result delivering nutrition lessons in service-learning (Gray et al., 2017). Finally, undergraduate students were able to better identify with community members' struggles and in several instances, this was also only collected post-service (Horowitz et al., 2010; Kruger et al., 2015; Walsh et al.,

2015). Brown et al. (2007) also showed an effect on students' understanding of the issues that community members face when comparing data collected pre- and post-service-learning from student self-report. This may lead to ask the same question that Reeb et al., (1998) had of community service self-efficacy is there a ceiling for skill improvement related to service-learning when baseline levels are high?

The skill area the participants felt the least confident in was communication and cultural competence. The specific population with whom the participants felt the least confident in their ability to communicate was those whose first language was different from their own. This may be due to lack of exposure to different populations. Participants also predicted this would be an area in which they would learn to improve via service-learning. According to the National Survey for Student Engagement (2017), when surveyed about the past year, 35% and 24% of seniors reported that coursework emphasized skills to work effectively with people from different backgrounds quite a bit or a lot, respectively. These numbers combined (59%), were higher than expected; however, coursework that utilizes lecture format to teach skills in the classroom is not equivalent to practicing those skills in a real-life environment, as discussed by the participants in the focus groups. The National Survey for Student Engagement does not report the pedagogy in which those skills are addressed, or the confidence the respondents have in carrying out the skills, simply that they are addressed.

The other skill area that fell below the overall SSLI mean was time management and transportation. This was cited in the focus group discussion as a potential challenge, as well as in the literature (Burke & Bush, 2013; Lau, 2016). Interestingly, in the focus groups, participants often referred to these as barriers other students may face, not necessarily the participants themselves. For example, one participant believed that time management may be a problem for

“some students.” Transportation was also phrased as a challenge to other students, in that some may not have the transportation to get to where they need to go. In this instance, the survey may have decreased any social desirability response bias that was present during the focus group discussions.

The skill area the participants felt most confident in is was recognition of self-identity/relationship with health. However, this skill area also had the lowest level of internal consistency among questions. There are two explanations for this lower level of internal consistency. First, the item consisted of only two questions: “Ability to recognize my own social identity in regard to race, gender, socioeconomic status, religion, family structure, sexual orientation” and “Ability to recognize how my social identity impacts my health.” The second explanation is from a similar discrepancy in the literature between self-identity and relationship with health. Prior to engaging in a Health Privilege Exercise, students from upper and lower level courses were asked to consider their own social identities and how society versus individual responsibilities shape health (Irby-Shasanmi et al., 2012). Students in the introductory courses were least likely to agree that an individual’s health is influenced by society or level of social class, and most likely to agree that optimal health is one’s own responsibility. This group also believed that health is a privilege, not a right (Irby-Shasanmi et al., 2012). Even students whose health had been negatively impacted by their social standing were not aware of how social determinants shaped their own health (Irby-Shasanmi et al., 2012).

Additionally, concepts of privilege and equity are not addressed across the board in undergraduate curricula. According to undergraduate seniors who responded to the National Survey for Student Engagement, 28% reported coursework discussed issues of privilege or equity ‘quite a bit,’ and 21% reported these topics were discussed ‘a lot’ (NSSE, 2017). In other words,

these concepts were only discussed in about half of coursework. However, after completing a service-learning course, students were asked to reflect years later on the experience and came to realize their economic privilege and the impact it had on their lives. More importantly, they were able to shift from feelings of guilt around their privileged social status, to a sense of responsibility. Others reflected on privilege that arose from their gender and race, but did not believe these social constructs would have an impact in the trajectories of their lives or interactions with others (Jones & Abes, 2004).

#### **5.4 Relationship Between Self-Efficacy and Confidence in Skills for Service-Learning**

There was a significant relationship between self-efficacy and skills associated with service-learning, where self-efficacy was associated with skills anticipated for service-learning. The only skill area that was not significantly associated with self-efficacy was recognizing one's own social identity and the impact that has on health.

Cooke et al. (2017) provided skills training to undergraduates prior to engaging in a service-learning project. The training took a "layered approach" and addressed interpersonal and discipline-specific skills, as well as improving self-efficacy, because self-efficacy plays a role in "successful, mutually beneficial service-learning" (p.2). Additionally, Cooke et al. demonstrated a significant relationship between self-efficacy and skills; the authors reported that self-efficacy improved when success was attributed to skills rather than chance (2017).

Richards & Levesque-Bristol (2016) showed a direct pathway between self-efficacy and behavior, as well as between self-efficacy and skills. They reported significant relationships between CSSES and cultural competence and ethical leadership. The correlations in the current



study, as well as Cooke et al (2015; 2017) and Richards & Levesque-Bristol (2016), support the hypothesis for Research Question 2a (there would be a positive relationship between self-efficacy and confidence in skills for service-learning) and Bandura's (1986) teaching of self-efficacy as related to skills specific to a behavior. Self-efficacy did have a statistically significant relationship with overall SSLI and six of the seven skills area. The skill area correlated most strongly with service-learning success was problem solving and group work. This is unsurprising, given that in the focus groups students discussed negative experiences with service when they were part of an uncooperative group, but felt that group or partner work for service has the potential to improve the experience.

### **5.5 Interpretation of Findings**

The focus groups were conducted over three separate sessions. Participants came with varying levels of experience with service-learning and had previously participated in a number of different service experiences, both at the University and in high school. Despite their differences, the participants were able to provide insight that was cohesive across individuals and groups. Focus group themes spoke to the perceived benefits and challenges of service-learning, and recommendations for the future.

## **5.5.1 Theme 1: Undergraduates and the Community Reap the Benefits of Service-Learning**

### **5.5.1.1 Benefits to Self in the Service-Learning Experience**

The participants described many benefits they would expect to derive as a result of service-learning integrated into coursework in their major program of studies. Their expected benefits align with actual outcomes reported in the service-learning literature.

#### ***Learning***

As the pedagogy implies, participants expected learning as a benefit to themselves. Learning took the form of improved understanding of academic content, learning interpersonal and problem-solving skills, learning from different perspectives and learning hands-on skills required by health and exercises sciences.

Increased academic knowledge as a result of applying coursework in a real-life scenario was a reported outcome of service learning by Bjerke (2012), Horowitz et al. (2010) and Lau (2016). Additionally, Champagne (2006) found this benefit to be heightened when the students had more responsibility at their service sites. Students were assigned to seven different service sites and a dose response in the benefits was found. Those who completed more service work related to their course work rated the experience higher in terms of developmental competence (Champagne, 2006). This has important implications for service development. Service-learning can provide an academic benefit, but not all service-learning is created equal.

Participants also believed that service-learning would improve their interpersonal skills and ability to understand others' perspectives. This is confirmed in the literature. Lau (2016) reported from students' service-learning journals that they felt improvement in interpersonal relationship

building as they conducted a healthy eating intervention with community youth. Several studies indicated that undergraduates were better able to understand the realities their community partner faced. This outcome was present in service-learning with many different populations including youth (Galvin & Parker, 2011; Walsh et al., 2015), homeless or impoverished individuals (Brown et al., 2007; Kruger et al., 2015), and elderly adults (Horowitz et al., 2010; Kearney, 2013). These results show a clear message that there is not one ideal community partner, as students are able to learn from and develop empathy for a variety of populations when given the opportunity.

In the current inquiry, participants expected that the hands-on experience would be beneficial. Likewise, Himelein et al. (2010) asked for student feedback post service-learning, and 93% of them reported that the real-world experience was the greatest strength of participating in service-learning. Participants in the current study expected that the hands-on aspect of service-learning would improve their ability to communicate with a variety of populations. Similar outcomes are seen from Begley et al. (2009) and Kearney (2013). Participants in these studies reported increased communication skills associated with cultural humility. Kearney (2013) conducted a study with a control arm who did not participate in service-learning. Those who participated in service-learning reported significantly higher scores on effective communication and cultural awareness.

Focus group responses regarding hands-on benefits also included improving the ability to think on one's feet and problem solve. These outcomes are seen frequently in service-learning literature. Community nutrition students created lessons to deliver to a low-income Latino population and reported improved critical thinking (Gray et al., 2017). Upon completion of an exercise program for local firefighters, 50% of students who participated in this service strongly agreed that they improved problem-solving skills (Bjerke, 2012). Additionally, those who

participated in service-learning realized they were able to improve their ability to problem solve on the spot when interacting with a real-life partner (Begley et al., 2009) and they are able to develop their own strategies to overcome common barriers to service-learning (Lau, 2016).

A skill that was described as valued in the literature, that did not arise as a learning opportunity in the focus groups was leadership skills (Caspersz & Olaru, 2017). This may be due to the design of the current study and the previous experiences of the participants. It is possible that their service-learning experiences to date did not provide an opportunity to use or develop leadership skills, therefore they did not perceive this a benefit. The majority of the literature reviewed that addressed this skill were collected more immediately post-service. Therefore, the participants in these studies were reporting fresh from the experience and perhaps better able to remember and describe their leadership tasks. Both kinesiology and public health students have reported improvements in leadership skills during post-service data collection (Sabo et al., 2015; Walsh et al., 2015).

### ***Gratification***

The next benefit participants perceived regarding service-learning was helping others and gratification. Walsh et al. (2015) found self-satisfaction as an outcome of service-learning with kinesiology students who helped local youth through a career club. Additionally, when undergraduate students believed a service experience to be satisfying, they also tended to seek out similar experiences (Jones et al., 2008; Sabo et al., 2015). This benefit should be viewed as cautionary related to service-learning. Gratification and self-satisfaction are not negative, however should not be one's sole motivation to participate in service (Muturi et al., 2013). Service-learning needs to reach beyond these concepts to promote a behavior change to a lifetime of community engagement. Optimistically, Jones and Abes (2004) did find this change in behavior and thinking

to take place as a result of service-learning. Students who originally were motivated to participate in service-learning to help others came to realize their own values that were consistent with the values of service-learning and had a “genuine interest in putting others’ needs ahead of their own” (p. 154).

Walsh et al. (2015) and others discovered themes of self-fulfillment in service-learning reflections. However, Jones et al. (2008) found that students who completed mandated service-learning did not find it to be self-fulfilling. This was not the case with the participants in the current study. Frequently, the participants connected service-learning to helping others, which provided a sense of gratification. One participant stated after completing a service-learning experience you can go to bed at night happy, knowing you helped someone. Helping others is certainly an outcome of many service-learning courses. Previous studies have showed several instances of increased knowledge or improvements in health and fitness, and overall well-being as a result of the “help” students provided in the community (Bjerke, 2012; Galvan & Parker, 2011; Gray et al., 2017; Himelein et al., 2010).

The concept of charity that emerged with helping others is alarming and will need addressed moving forward. Often, the participants referenced community members living in an undesirable circumstance such as without insurance, in poverty, or diminished health, or without access to certain resources. The undergraduate students in the focus group believed that through service-learning they would be able to help these individuals, fix them in a manner, and thus feel good about themselves. The literature also cautioned of this unintended consequence of service-learning. The concept of charity is increased when service-learning is implemented by white females (Taboada, 2011), which was the majority demographic of the current inquiry. If left unchecked, charity can create a superiority complex in those who engage in service-learning. They

would be doing the right things for the wrong reasons, thus perpetuating the very cycle of oppression that service-learning aims to break when modeled after Paulo Freire's consciousness-raising model and education as liberation (Whitely & Walsh, 2014).

### ***Professional Development***

Finally, participants believed that service-learning would benefit them in the way of professional development. They viewed this as a benefit by learning job applicable skills and believed that service-learning provided an opportunity to network and surpass their peers for competitive graduate school and job openings. Professional development appeared in the service-learning literature as an anticipated benefit (Muturi et al., 2013), a motivator (Paull et al., 2017) and a documented outcome (Horowitz et al., 2010). Muturi et al. (2013) asked undergraduate students what they anticipated as a result of service-learning and professional development was one of three themes reported. Likewise, Caspersz and Olaru asked undergraduates what they value in service-learning and one of the four most significant responses was developing workplace skills (2017). Occupational therapy students who engaged in service-learning in a course with older adults reported the experience to be beneficial for their future careers (Horowitz et al., 2010). Another promising result in the way of professional development was seen in public health students who indicated they were likely to incorporate service into their careers after participating in a service-learning course (Sabo et al., 2015).

Professional development as a beneficial outcome is an additional cautionary tale within service-learning. Fletcher and Piedmont (2017) described this as manner of neoliberalism. They feared that students are seeking to accumulate hours in service to simply add to their resume and place themselves above others; Both others who they are competing against for job positions and graduate school seats, and above the others they are serving.

In the current inquiry, focus group discussions around professional development included decision-making for the future. Participants in the current study responded with career decision making as a motivator across all three groups. This concept was not discussed as strongly in the literature. During the original review of literature, only one study reported career choice implications as an outcome (Himelein et al., 2010). Upon reviewing additional studies, career decision-making was an intended outcome for service-learning in high school students (Coulter-Kearn, Coulter-Kern, Schenkel, Walker & Fogel 2013). In this study, undergraduate students attended a career fair for high school students. In this quasi-experimental design (service-learning compared to non-service-learning groups), undergraduate students helped to provide career information to the high school students. All undergraduates completed a career knowledge and personality assessment. Undergraduates in the service-learning group had greater recall of personal inventory and higher scores on the career knowledge test on an announced post-test compared with the control group who did not participate in service-learning (Coulter-Kern et al., 2013). Therefore, this fair that was indented to teach high school students about career options, did still provide a reciprocal benefit to the undergraduate students.

In another instance, service-learning was used to motivate undergraduate students to pursue a career choice that was generally underrepresented. After completing field trips, summaries, team meetings, and written and oral presentations, the students rated the service-learning course high on end of term evaluations. A job placement survey revealed that 79% of students who participated in this course had jobs in the industry of study, versus only 45% of those students who did not participate (Hernandez & Ritchie, 2015). These studies provide some additional basis for service-learning to help confirm career choice decisions and to open up new possibilities.

As for the reason professional development was so pervasive in the discussions of the current study could be due to the sample demographics or the majors included in the study. The majority of the sample was in their freshmen and senior years. Freshmen may still be in the career/major decision-making stage, whereas, seniors may be in the decision-regretting state. Additionally, health science majors are presented with a variety of options when they complete their undergraduate degrees. Many will pursue graduate-level professional degrees in several areas including physical therapy, occupational therapy, nutrition, chiropractic, medicine and others. With so many options and the need to continue on to advanced degrees to pursue these areas, students want to be sure they are making the best decisions for themselves.

Participants also believed they would be more confident in their ability to perform professional skills associated with service-learning. However, this code related more to self-efficacy rather than skill building itself. Even though they did discuss skill improvement, confidence more described the perception that they could execute those skills. Cooke et al. (2015) conducted service-learning research with a control arm. They found that students who participated in service-learning had significantly higher self-efficacy scores at the midway point and end of the course compared to those who did not participate in service-learning.

#### **5.5.1.2 Benefits to the Community**

Focus group participants associated service-learning with labor and hard-work volunteerism with community organizations. Volunteer and labor efforts were viewed as a benefit to the community in the literature as well because this may help fill gaps in the organizations' labor needs (Blouin & Perry, 2009). In addition to providing labor assistance during the service-learning course there is a precedent for undergraduate students to remain with an organization at the cessation of a course (Sabo et al., 2015).



The participants in the current study believed they could provide valuable resources to the community through service-learning, including knowledge, opportunities to be more physically active, and supplies. Six studies included in the literature review collected impact data from directly from community member participants and confirm what focus group participants expected. Overall, the perception of service projects by the community participants was positive. Respondents to program impact questionnaires reported increased knowledge because of the students' intervention (Begley et al., 2009; Gray et al., 2017; Horowitz et al., 2010). Community members also improved in several areas of health and fitness as a result of participating in the service-learning projects (Bjerke, 2012; Galvan & Parker, 2011; Gray et al., 2017; Himelein et al., 2010).

### **5.5.2 Theme 2: Facing Adversity: Challenges of Service-Learning**

In addition to the benefits, participants in the current inquiry also discussed what they expected to be challenges regarding service-learning. Personal challenges and challenges working with communities mentioned included logistics and apprehension. The logistical challenges that participants expected to navigate were time management, transportation, clearances, community cooperation, group work, and trust. Time management and transportation challenges were also common in the previous service-learning literature (Burke & Bush, 2013). Occupational therapy students found time management to be a barrier at the onset of a service-learning course; however, following completion of the service-learning course, developed better time management strategies (Lau, 2016).

As Jones et al. (2008) found, participants believed required service-learning to be a burden and would choose the most convenient or least time-consuming options, particularly when the

subject matter was not of interest to them. In this case, the students had difficulty navigating the options for service-learning sites and were left on their own to decide. Participants in the current study also voiced the challenges they have experienced in finding sites to complete service-learning requirements. Unlike the participants from Jones et al. (2008), those in the current inquiry did not report any level of academic dishonesty in the previous experiences, or falsifying attendance reports for service-learning.

We are not aware of any previous literature that specifically supports the challenge of securing clearances and background checks as requirements for service-learning. The current sample, similar to many of those in the literature, were enrolled in health-related majors. Therefore, course- and project-related differences would not necessarily account for the discrepancy. It is possible the studies reviewed did not require clearances and background checks, or at least did not require students to obtain them on their own. Several participants in the focus group disclosed part-time work in places such as nursing homes, so it is also possible that they are more in-tune with the requirements of these facilities. One service-learning barrier noted by Burke and Bush (2013) was affordability. This may provide some connection with the current findings, as clearances and background checks have fees associated with them.

Community cooperation, trust, and scope of practice were also perceived challenges to the participants in the current inquiry. These challenges are confirmed both from studies with undergraduate students, as well as community partners. Previously, students reported poor experiences if they felt their time was not used effectively, or if they were not kept engaged with the community partner (Paull et al., 2017). Participants in the current study worried that community members may not engage with them or with the activities set as part of the project because community members may not take students seriously.

Participants also feared the community partners would not trust them because they are students. Participants often assumed they would be viewed less competent to provide service, or health-related recommendations. Along with this, participants felt it would be challenging to remain within the boundaries set by the community organization or their scope of practice. This challenge was heightened when participants felt as if they knew how to respond to a situation and were not permitted. They equated this with lying, but understood the importance of abiding by boundaries and that overstepping could also provide basis for distrust between the undergraduates and the leader of the community organization.

Participants also described the apprehension of working with others in service-learning, in terms of fear of how they may be perceived by others. A previous study by Peterson et al. (2014) also uncovered that participants felt that adults in the community looked down on them for being “just kids.” In the literature review, students were concerned about building relationships and working effectively with their community partner (Diambra et al., 2009). The current discussions also revealed that undergraduate students perceived there to be challenges in building relationships with faculty, their peers, and the community partner. They described problems keeping pace with peer groups, disagreements among group members, and feeling disconnected from faculty. Regarding decreased student-faculty relationships, this may be unique to the experiences of these participants, as Bjerke (2012) found that service-learning improved student-faculty relationships.

In the literature, community leaders spoke of challenges when they found the students to be underprepared, unprofessional and unreliable (Bloun & Perry, 2009). They also spoke to scope of practice in that they had instances in which students overstepped boundaries set by the organization (Blouin & Perry, 2009). Community members themselves who participated in the service activities with students did not express distrust, in fact most feedback was positive. There

is a gap in service-learning literature, however, when it comes to assessing the community partners. The majority of the research is focused on students, and the attitudes and outcomes of the community are often overlooked (Blouin & Perry, 2009).

Nervousness was also described as an emotion by the participants they expected to feel prior to service-learning due to a lack of experience. In their previous experiences, they felt scared and stressed of the unknown. These findings align with Peterson et al. (2014) who found students feared the unknown and worried about meeting the expectations of others. The actual engagement in service-learning did decrease anxiety and improved attitudes about service-learning as reported by Begley et al. (2009).

### **5.5.3 Theme 3: There is Always Room for Improvement**

Participants in the current inquiry suggested several opportunities for improvement of service-learning in the future. The three main recommendations were related to inclusion of student voice in the planning, student preparation, and real-life experiences. These categories have been discussed in the literature as having an impact on the service-learning experience. When planning, preparation and real-life experiences are not adequately addressed there may also be a diminished effect in students' ability to build relationships with community partners and decreased integration with academics. As a result, students' motivation to remain engaged with a service-learning project will decline (Darby et al., 2013).

#### **5.5.3.1 Student Voice**

The participants felt it was critical that their voice be included in the future design and decision-making of a service-learning project. They wanted to contribute ideas, be given choices,

and granted autonomy, and they wanted to engage in projects to meet their personal interests. As far as including student voice, the design of this study aimed to do just that, and the participants confirmed it to be necessary for successful service-learning projects. Caspersz and Olara (2017) confirmed that the spirit of service-learning should include a student voice. The best way to promote civic engagement, an overarching goal of service-learning in general, is through democracy within coursework with the hope it will translate to future civic engagement.

The current sample of participants expressed the need to engage in a service-learning project that meets their interests. In this specific context, this meant they would prefer service-learning integrated into a major course, versus a general education course. Or, at the very least they preferred that the service-learning project be related to their major. Post et al. (2016) presented data from a focus group collected post-service after receiving negative feedback from students in the course. Participants desired higher levels of relatedness to the service-learning experience and wanted a connection to their intended career. Similarly, adult learners were asked to share their opinions on service-learning, and they asked to be involved in the planning stages, including selection of the commuting partner (Reed et al., 2015). Participants in the current study also described specific populations (community partner) and settings (service-learning site) they wished to engage with to increase their interest and investment in a service-learning project.

Although the participants in this study indicated preferences for the community partner and site, the service-learning literature sets a pattern for undergraduate students to adapt to the partner population and setting, citing this as a positive outcome. Previous studies have documented service-learning experiences where students had improved attitudes, fewer stereotypes, and increased understanding regarding the population with whom they were working (Brown et al., 2007; Galvin & Parker, 2011; Himelein et al., 2010; Walsh et al., 2015; Horowitz et al., 2010;

Kearney, 2013). These studies do not operate to discount the desires undergraduate students may have when it comes to selecting a community partner. It does, however, serve as a reminder that undergraduate students should be encouraged to keep an open mind and to treat service-learning as the learning experience it is intended to be.

Participants described that they desired guided autonomy in a service-learning project. They previously had difficulty finding sites when left to their own devices. Undergraduates who were asked to reflect on their high school service-learning requirements voiced similar frustrations (Jones et al., 2008). Participants in the current study believed that if they were given a list of community groups to choose from this would ease their burden of finding a site on their own, they would be able to find a setting that meets their interest, and still maintain a sense of autonomy and control over the experience.

### **5.5.3.2 Student Preparation**

Focus group participants expressed the need for more preparation prior to engaging with a community partner in service-learning. They believed this could be accomplished through enhanced instruction, in-class practice, and the use of group work throughout the course. One study used a focus group prior to a service-learning project to give faculty an opportunity to explain the project, roles and expectations, and undergraduates were able to voice their concerns and ask questions (Diambra et al., 2009). The authors felt this provided a good introduction to the project and the other students in the group. Students also reported that increased faculty support and guidance would enhance service-learning motivation (Darby et al., 2013).

Two studies were able to demonstrate that pre-service instruction leads to a more successful service-learning experience. Through analyzing post-service reflections, Cooke and Kemeny (2014) reported that practicing service-learning activities and skills in the classroom, in addition

to assigned readings, helped to prepare students when it came time to engage with the community partner. Additionally, another study used a randomized controlled design to evaluate the effectiveness of pre-service orientation. Students who received the orientation felt more confident and prepared compared to those who did not receive the orientation (Wallace et al., 2017).

Only one participant in the current study voiced her frustration in the focus group discussion that often the faculty member who assigns the service-learning project is not present during implementation. Similarly, during a post-service focus group, students mentioned they appreciated having their faculty member on-site, and found the presence helpful (Horowitz et al., 2010). Faculty presence would allow students to feel more supported during the service-learning experience, and the faculty who is evaluating their work would be available to answer questions and clarify expectations. Intermittent faculty check-ins at a service-learning site have also been recommended (Darby et al., 2013).

Focus group participants felt that group work could be beneficial in the preparation phase and for continuing reinforcement throughout the service-learning course. They voiced that their peers could be a source of feedback and modeling for learning, and to decrease their initial anxieties. Group work can allow for modeling and vicarious learning to occur (Bandura, 1971). This can be accomplished by purposefully grouping students for peer support to learn new skills and increase confidence (Bandura, 2012; Bill & Casola, 2016). In another study, students prepared materials for the service project and rehearsed the delivery in effort to master the subject matter, leading to enhanced confidence and improvement in working with others (Powell & Conrad, 2015). In a different study, students were given a chance to evaluate videos of others teaching, observed their peers practice delivering lessons, and provided feedback prior to a service-learning experience (Cooke et al., 2015). These exercises successfully improved students' self-efficacy

through observation, verbal persuasion, and mastery experiences throughout the semester (Cooke et al., 2015). Service-learning outcomes also demonstrated that students learned the value of group work and how they can contribute to the learning of others and learn from their peers (Keim et al., 2015).

### **5.5.3.3 Real-Life Experiences**

As indicated by the focus group participants in the current study, and those from Gonzalez and Bussey-Jones (2010) and Behar-Horenstein et al. (2015), students in health-related majors want to learn in scenarios that replicate real-life situations, and provide an opportunity to practice hands-on skills as they accumulate experiences working with different populations. Other studies have found most students agreed that the real-world experience was a strength of the service-learning experience (Himelein et al., 2010; Kruger et al., 2015) and that students rated this area high on post-service-learning surveys (Kruger et al., 2015). Participants in the current inquiry also discussed how service-learning was less meaningful when it did not involve direct contact with a community partner, for example, dropping off food at a donation center rather than interacting with those who utilize the food pantry or kitchen, corroborating findings from Jones et al. (2008). When comparing service sites across one course, students who had more responsibility rated their experience more positively than those with less (Lau, 2016). Students also reported negative experiences if they did not feel they were kept engaged by the community partner (Paull et al., 2017). Casperersz and Olaru (2017) also hypothesized that when service-learning projects have no or minimal formal activities incorporated into the design, that students will not find the experience beneficial.

Real-life experiences and community interactions alone are not sufficient for a successful service-learning experience. As the name implies, learning should occur, and participants are



invested in that learning experience. One participant in the current inquiry even described her ideal service-learning experience as just learning as much as possible. Participants wanted experiences with a clear tie to academic content integrated into their coursework. The tie to academic content is necessary to fit the definition of service-learning set by Bringle and Hatcher (1996).

### **5.6 Connections to Theories and Models Associated with Service-Learning**

The approach of this inquiry was a needs assessment to take the first step in co-creating a service-learning experience with students. The inquiry was designed by guiding principles of service-learning such as Freire's consciousness-raising model and feminist theory (Allan, 1993; Whitely & Walsh, 2014). These two principles as well as John Dewey's Experiential Learning Model (Giles & Eyler, 1994; Whitely, 2014; Whitely & Walsh, 2014) were salient through the focus group discussions, specifically in Theme 3: There is always room for improvement. Students voiced they wanted to have a voice in the process and they wanted hands-on experiences, which is directly in-line with the theoretical framework of service-learning.

Participants voiced frustration with past service-learning experiences in which they were not given a chance to provide their opinion at the onset. Although this study was designed to be a step towards reducing student feelings of exclusion and oppression in their own education, the need to continue the practice of including their voices was a core category in Theme 3. However, they did not seem to make the same connection to community members. There were no recommendations made about learning from community members beyond improving their own skills sets. Service was described as being "given" to the community. Under the notions of feminism as related to service-learning, the undergraduate students should be engaging in service-

learning *with*, not *to*, community members (Allan, 1993; Whitely & Walsh, 2014). The participants felt as though they needed to be heard, valued, and respected by faculty; however, this same level of reciprocal learning and understanding should occur between students and community members. This study aimed to follow Freire's teaching to break down power dynamics between undergraduates and faculty; however, the findings show that there is a need to breakdown power dynamics between undergraduates and community members.

Including student voice is in-line with the views of Freire and feminism, and is also related to Self-Determination Theory (Deci & Ryan, 1985), which was applied through the decision to conduct a needs assessment. Self-determination theory views human behavior in relationship to autonomy, mastery and relatedness (Deci & Ryan, 1985). Autonomy was viewed by the participants as a choice or say in the types of organizations to work with. Participants felt that mastery of skills was both an outcome of service-learning and an important part of the preparation. Relatedness comes from perceiving a connection to classmates, the faculty and/or community, and engaging in a service-learning activity that meets their interest.

The participants also recommended the need for more real-life and hands on experiences, and John Dewey's Experiential Learning model calls for just that. Dewey believed that learning should occur through cycles of experience and reflection, as service-learning calls for (Whitely & Walsh, 2014). Bringle and Hatcher call for service-learning to be tied to academic content and to include reflection in their definition of service-learning (1996). The participants also recommended their service-learning experiences have a stronger tie to academic content. In regards to the need for reflection, the participants did not find this to be an area they were lacking. They did acknowledge the use of reflection in their past experiences by saying they "need to write a paper." Their ability to reflect on learning was a skill area with a high mean on the SSLI, second

only to their ability for academic learning. Ability to reflect on learning did have a positive correlation with self-efficacy. There was a strong effect size, however it was the weakest of the other six areas that were correlated with self-efficacy. Participants did not view this as one of the highest skills associated with their ability to engage in service-learning. It is possible that their attitudes of completing service-learning to write a paper has led them to complete the reflection to earn a grade, not to engage in meaning-making around the experience.

### **5.7 Strengths and Limitations**

A major strength of this study was the ability to gather rich, descriptive data from the focus group discussions on the participants' perceptions and expectations for service-learning. The sample was representative of the majors under examination in terms of gender and this helped to reach saturation. Although one focus group had to be cancelled due to a weather-related campus closure, and not all participants could be rescheduled, it is doubtful this affected the outcomes. It was concluded that saturation of information had been reached from the themes revealed in the first two focus groups as no new codes were added from focus group three. Conducting the additional focus group, or rescheduling all of the participants would not likely have contributed any additional information. In terms of the quantitative data, the CSSES had previously been validated. The SSLI, which was created for this study, had a high level of internal consistency for the total scale and six out of seven subscales. Many items from the SSLI were discussed in the focus groups, prior to completing the survey. This goes to further validate the usefulness of this tool for this population.

Although the overall sample was representative in terms of gender for the majors of this population, there are some limitations concerning the sample. The distribution of years in school was not even, with the majority of participants enrolled in their senior year. Additionally, one participant who contributed to the focus group discussion did not complete the survey. Because all of the participants are from one institution, one department, and had some similar previous experiences with service-learning, the results are not generalizable to other populations of undergraduates at other institutions, or possibly even undergraduates at the same institutions representing other academic departments. However, the goal of this study was not to produce generalizable results, but to guide a successful service-learning course for this specific sample of students. The framework, design, and overarching themes of the study may be reproducible in other populations (e.g., other populations of undergraduates may offer benefits, challenges, and recommendations for service-learning). Self-efficacy is necessary for service-learning across disciplines, therefore can be measured with students in other majors. Skill sets may also be explored across disciplines by adapting the SSLI to other majors and skill sets.

Regarding trustworthiness of the qualitative data, this may be questioned, as the lead researcher was primarily responsible for data collection and analysis. Peer debriefing was used with the co-moderator immediately following data collection and the co-moderator also reviewed the codebook for trustworthiness by comparing the codebook to her notes from the focus groups. The use of multiple instruments for data collection also increased the trustworthiness of the focus group findings.

There was a potential for response bias in both the focus group and surveys. Given that the focus group moderator was a faculty member with whom the participants were familiar, they may have provided more socially desirable responses, as evident by participants responding with “they”

rather than “we” in some instances. As if other students may experience challenges, but not themselves personally. Conducting the focus groups prior to the surveys may have also led some participants to rank their skill areas higher because they had just been discussed and their perception that the faculty member would value more confident participants. However, we are unable to determine whether the means were higher due to response bias, or actual confidence in the skills due to prior service-learning experiences.

## **5.8 Future Recommendations and Implications for Practice**

### **5.8.1 Recommendations for Future Research**

Future research recommendations include using the SSLI with undergraduate health and exercise science majors, as well as adapting the instrument to other populations. The SSLI was a tool developed for this study but may be adapted, used, and validated in future studies. The SSLI can also be used pre- and post-service to look for a mediating effect of service-learning on the confidence of associated skills. Participants called for additional instruction and preparation for service-learning. The SSLI could be used to measure confidence in skills at 3 data points: at the beginning of a semester, after instruction and preparation, and following the service-learning experience. The CSSES can be used in a similar way to examine the mediating effect on self-efficacy with future undergraduate health and exercise science samples. Because the scale is not discipline-specific, it could also be used to measure self-efficacy in the general education course with a service-learning component. Undergraduate students could complete the scale at the

beginning of their freshmen year and after each of the four courses to look at the effects of service-learning on self-efficacy.

The SSLI could also be adapted to the skill sets required in other disciplines and used in a similar manner. Focus group participants stressed the need for faculty to provide service-learning instruction. The SSLI may be adapted to determine the level of confidence faculty have to incorporate teaching these skills in their classroom before asking their students to complete a service-learning experience.

### **5.8.2 Implications for Practice**

The results of this mixed methods study revealed undergraduate students' perceptions, expectations, self-efficacy and confidence in skills for service-learning. The important data the participants shared can be used to improve service-learning practice for this sample. The key takeaways are that undergraduates should be included in the process of service-learning design and clear expectations need to be discussed at the onset. Additionally, effort must be made on the part of the faculty to avoid the unintended consequences of service-learning (e.g., service-learning as charity, focusing only on personal benefits, feeling underprepared) which may lead to an overall decrease of benefits to themselves and the community partner and put students in a position of power.

First, undergraduate students should be afforded a say in the service-learning design, as recommended by the current sample. This can include focused discussions at the beginning of the semester with brainstorming of ideas and voting as a class on the proposed ideas. If feasible, students may be able to select from multiple options. Once this is settled, instruction and preparation should begin. Faculty and community supervisors must agree on the tasks associated

with the service-learning activities and relay them explicitly to the students. Students should be given the opportunity to voice any questions or concerns they may have. Pre-service requirements such as background clearances, transportation, and expected time commitments need to be addressed at this time. Students can discuss potential methods to overcome any perceived barriers at this time. This is a good way to learn they are not alone in facing their barriers and share strategies with one another.

Next, a service-learning orientation should be implemented. During this orientation, students will learn what service-learning is and isn't: service-learning is a credit-bearing academic experience, not an internship; it does not aim to foster job-related skills (Bringle and Hatcher, 1996). Students also should learn that the intended outcome of service-learning is to produce civic-minded graduates as a primary goal, not solely to enhance a resume or help community members (Fletcher & Piemonte, 2017). It may also be necessary to allow students to discuss what 'civic-minded' means to them. To emphasize that service-learning is not charity, students will engage in selected readings and self-discovery. Self-discovery can allow students to understand the dynamics of privilege and power. Proposed self-discovery activities include inventorying their social identity and how that has provided privileges and barriers to optimal health. Implicit bias quizzes can be used to evaluate how they unconsciously think of others (Banaji & Greenwald, 2016). Activities conducted with their peers include the Health Privilege Exercise (Irby-Shasanmi et al., 2012) and playing *The Last Straw!* a board game intended to teach social determinants of health (Rossiter & Reeve, 2008). Each of these activities should be followed by a period of self-reflection, either written individually or discussed in groups. The use of ungraded reflections after orientation may help students engage in meaning making, rather than feeling as though they need to provide the "correct" answer in order to earn a grade. Once a community partner and service-learning activities

are selected, students should hypothesize what they may have in common with the community partner and re-evaluate post-service.

Once the tasks of service-learning activities are set, the skills associated with the tasks should be determined. Students should be involved in this part of the process - what skills do they perceive they will need? And what skills need to be strengthened? Students should have a chance to learn and practice the skills in a lower-pressure environment, such as the classroom. They can also extend past the classroom to gain more real-world experience prior to engaging with community members to increase their confidence and problem-solving skills. For example, participants reported being the least confident in communicating with others whose language is different from their own. If this is a necessary skill, they can volunteer on campus to be conversation partners with English as a Second Language students. Upon completion of this learning activity, they could evaluate the improvement of their communication skills, as well as reflect on what they had in common with a student who has just arrived to the United States from another country and culture. Another possible learning activity is practicing skills like blood pressure or body composition with students or faculty who volunteer as test subjects. They should subsequently reflect on challenges they faced, and what they learned from the interactions while assessing these vital signs. As suggested, engaging in pre-service practice and service-learning in small groups can help to improve confidence and the opportunity to learn from peers.

Students should also be afforded an opportunity to voice their apprehension about a service-learning experience. Students should be guided to address their worries, questions or fears in their reflections. They should be reassured that fear of a new experience is normal. They should be further reminded that this is a learning experience and that they may make mistakes. The reflection piece is a good opportunity to learn from those mistakes. Taking the time to remind

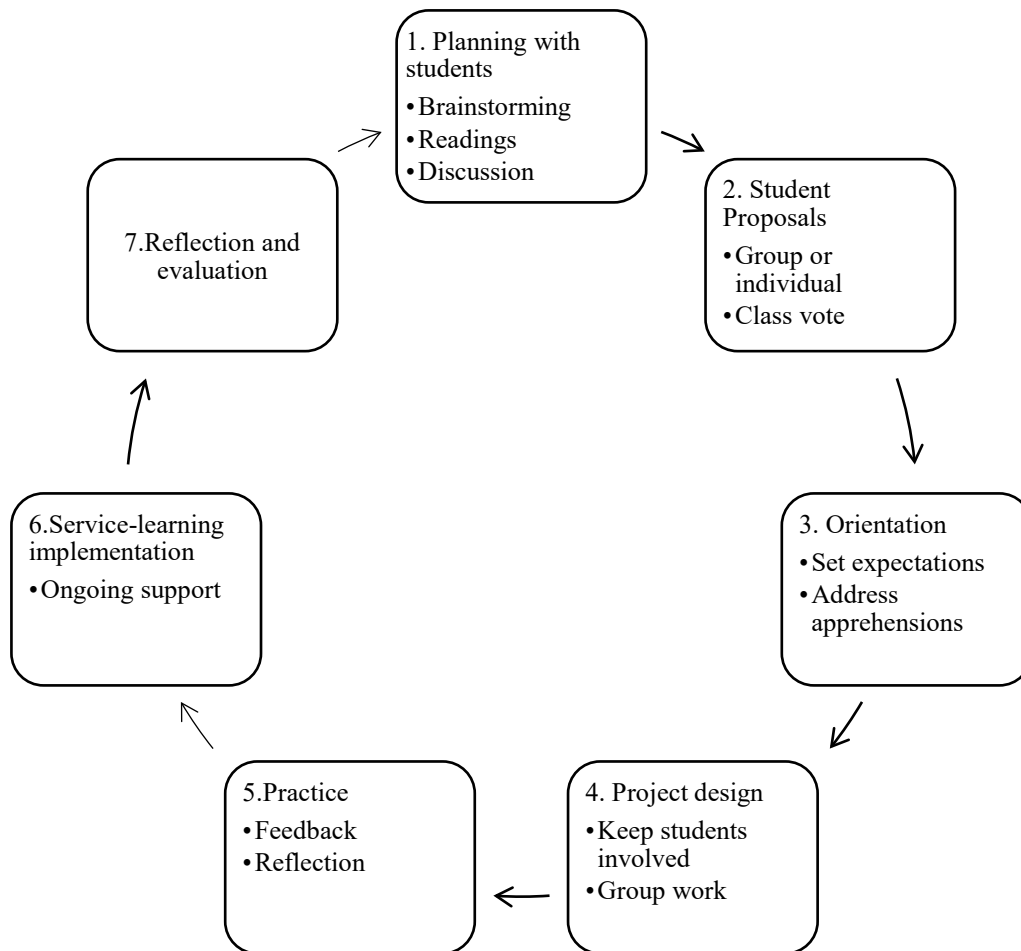


students that they are not expert professionals, as well as reviewing the service-learning expectations may also work to lessen anxiety. In an effort to raise self-efficacy, if appropriate, remind students of the successes they have had so far.

Finally, once service-learning activities have commenced, it will be critical for faculty members to remain engaged. This will provide students with a sense of support and likely keep them more engaged and invested in the experience. Depending on the nature of the activities, faculty may be present at all community interactions or need to make rounds if there are multiple sites. Once again, reflection during and after service-learning needs to be stressed as meaning making and not simply to earn a grade. If more emphasis needs to be placed on academic writing in relationship to the service-learning project, a research paper derived from the experience can be used (D. Bucco, personal interview, 2018). For example, if students were engaging with older adults they could write a research paper that examines fall prevention programs for older adults.

#### **5.8.2.1 Outline of Service-Learning Planning, Implementation and Evaluation**

Based on the findings of the current inquiry and the published literature, a seven-step conceptual model has been developed to guide service learning course development, implementation, and evaluation (Figure 1). While this model will be applied exclusively to the Health and Exercise Science undergraduate students at the lead researcher's current institution, it is likely that this process could be applied to other service-learning opportunities more broadly.



**Figure 1 Seven step model for planning, implementation and evaluation of service-learning in a Health Sciences course**

**STEP 1:** Including the students’ voice in planning is critical and theoretically-based, as previously stated, but faculty should also provide students with some project objectives as guidance. This may be focused on a specific population, setting, health issue and/or learning outcome. From there, guided brainstorming can occur with the aid of assigned readings and discussions.

**STEP 2:** Students can be given the opportunity to work in small groups to propose the ideas for a service-learning project. If necessary, the class can vote if only one idea is able to be accepted. An agreement between faculty and student will be reached in an effort to co-create the

service-learning experience. Although the students' voice is critical, the faculty would need to be involved in the decision-making to ensure that course objectives are met and the project is feasible within the boundaries of those objectives and course schedule.

**STEP 3:** Once the general concept of the service-learning project has been laid out, a pre-service orientation occurs. Faculty and students and community members/organization leaders should work together to set clear expectations for the service-learning project. Learning outcomes, defined tasks, and necessary skills for undergraduates should be explained. The SSLI can be administered at this time to determine skill areas that may need improvement. Technical skills related to health and exercise science should also be addressed and areas of improvement determined, this may include for example, taking a blood pressure or body composition measurements. Discussions and learning activities around identity, power and privilege, and the impact this has on health will also occur. Reflection should begin here so students have a space to ask clarifying questions and voice any apprehensions they have in an effort to resolve any issues prior to engaging with the community partner. Reflection may be written or verbal and completed individually or in groups.

**STEP 4:** The next step is to clearly design the service-learning project. In this phase students will be involved in planning what the experience will look like for themselves and the community members. For example, if they are implementing an exercise class for older adults, they will plan the layout of the room in which they will conduct the class, the specific exercises they will use and how to cue the movements, and what music to incorporate. In addition, they would plan for what likely corrections to exercise movements they will need to give. With peers and guided by faculty, students should plan for any barriers or challenges may arise during project

implementation. Students would make plans for the project in small groups to learn from one another and provide feedback to their peers.

**STEP 5:** Students should next have the opportunity to practice and receive feedback from their peers and faculty. Students should be given class time as well as homework assignments to continue to prepare, practice service-learning and health and exercise science related skills, and conduct a “dress rehearsal” of the service-learning project implementation, if appropriate. Student reflection continues in this stage, allowing them to recognize self-improvement and address any new concerns.

**STEP 6:** The service-learning project should be implemented with ongoing support from faculty members, peers, and community leaders. Faculty should be present at the service-learning site as much as possible, either continuously or intermittently. Faculty should be available to answer questions about the service-learning implementation during class time or office hours when problems or new apprehensions arise. Self-reflection continues and, again can be written and/or verbal, so that students continue to learn, problem solve, and make sense out of the experience, and how the project may impact the health of their community partner. Faculty should respond to reflections to provide positive reinforcement or address concerns when necessary.

**STEP 7:** Final evaluations of the experience should take place. The final evaluation can be in the form of conducting the Student Service-Learning Inventory survey post-service, guided reflection and/or completing a research paper around the health issue addressed in the service-learning project. It is also recommended to collect feedback from community organization leaders or community members who engaged in the service-learning project to maintain positive relationships or correct any mishaps. This may be completed in a questionnaire or short interview.

## 5.9 Conclusion

This dissertation in practice set out to answer two inquiry questions: 1) What are Health and Exercise Science undergraduate students' perceptions and expectations regarding service-learning?; and 2) What is undergraduate students' level of and relationship between self-efficacy and confidence in skills for service-learning? Three focus groups were conducted, in which 26 students participated in discussions, followed by completion of a survey.

The results of this mixed methods needs assessment revealed that undergraduate Health and Exercise Science students believed service-learning would be beneficial in a major course, both to themselves and to the community. With these benefits, participants also believed there would be challenges and offered suggestions for improvement. Survey results indicated that participants had high baseline self-efficacy for service-learning and confidence in skills for service-learning. There was also a positive relationship between self-efficacy and confidence in skills for service-learning, with six of the seven skill areas showing a large effect size.

The key takeaway from this study is the recommendations for the future. Students emphasized the need to be included in the trajectory their education. In the future, beginning with the upcoming academic year, a service-learning project will be implemented in a major course of study. The service-learning project will follow the seven-step model above that begins with including student voice. Other suggestions provided by participants including providing clear expectations and opportunities to practice will be used. The ultimate goal of this study is to create a service-learning project that capitalizes on the benefits and allows challenges to be met and viewed as additional learning opportunities by students. If this goal is met, it will be done with the intention of leading students to become well-rounded, civic minded citizens who want to continue to engage in service to contribute to the well-being of society.

## **Appendix A Introductory Script**

I am conducting an inquiry as a doctoral student in the University of Pittsburgh's School of Education, Health and Physical Activity Program. The focus of this study is to gain a better understanding of students' perceptions, expectations, skills and confidence for service-learning. Completion of this study will fulfill the dissertation requirements for my doctoral degree, but it is also my hope that it contributes to the limited research on undergraduate student needs for service-learning and will be used to improve your future service-learning experiences.

You have been chosen to be a participant in this inquiry based upon your current enrollment as a Health Sciences or Exercise and Sports Science major. You are an expert on your experiences and beliefs and your input is valued as I learn what students think about service-learning.

This study will examine participants' attitudes around service-learning based upon prior experiences. It will also examine the confidence level of several skills that are necessary for service-learning.

The design of this study will look to quantify your prior experiences, engagement level of service-learning with your perceptions of those experiences and how they shape your expectations to participate in service-learning in the future. The study will also look at your confidence for specific skills compared to overall confidence for service-learning. Participants will take part in a focus group lasting approximately one hour, after which you will be asked to complete a short

survey. As the primary investigator, and faculty member in the Health Sciences Department, I will be moderating the focus group and administering the surveys.

There are no direct benefits for participation in this study, other than a small incentive as a thank you for your time. Your participation is purely voluntary, and you may choose to discontinue the inquiry study at any time. There are no risks associated with participation. Your decision to participate, not participate and responses provided have no impact on any present, future or past grades earned. Approval from the Institutional Review Board (IRB) at the University of Pittsburgh was previously requested and granted as exempt prior to this invitation.

Should you wish to receive results of the study, you may request a copy by emailing me at [ejs119@pitt.edu](mailto:ejs119@pitt.edu). Your information will be anonymous and will not be connected to your name. Even your de-identified information will be treated as confidential. The data collected will only be available to me as the researcher, as well as my Advisor and Committee Chairperson, Dr. Sharon Ross. If you have any questions or concerns about this study, you can also contact Dr. Ross at [seross@pitt.edu](mailto:seross@pitt.edu) for additional information.

It is my hope that you choose to participate in this study, but I will certainly understand should you not want to move forward with being part of this inquiry.

Please acknowledge that you agree to consent to participate in this study and to be audio recorded during the focus group.

## **Appendix B Service-Learning Focus Group Script**

**Objective-** A comprehensive needs assessment to learn the service-learning perceptions and expectations of undergraduate Health Sciences and Exercise and Sports Science majors.

### **Welcome/Introduction (2-3 minutes)**

Introduce myself and the co-moderator

Ground rules-Speak one at a time and be respectful of your peers' responses. This focus group is confidential. I will not share your responses by name and you should not discuss any manner of this focus group outside of this meeting; This includes who is present and responses. Please feel comfortable to share freely.

### **Opening Question (5 minutes)**

1. Let's go around the table and each person tell us about their favorite volunteer or community service experience.

### **Introduction Question (5-10 minutes)**

2. Tell me what you think about when you hear the word service-learning.

**Moderator:** Service-learning is defined as a credit-bearing educational experience that combines an organized service activity to meet identified community needs and student reflection to gain a more meaningful understanding of academic content with an enhanced sense of civic responsibility" (Bringle & Hatcher, 1996, p. 222). Service-learning is "different from community



service because it has a clear tie to academic coursework and it varies from an internship in that it does not need to include skills in the context of professional education” (Bringle & Hatcher, 1996, p. 222). Please keep this definition in mind as we continue the focus group.

### **Transition Question (10 minutes)**

3. Think back to your most recent service-learning experience. Please describe the experience.

Probe: What did you like about this experience?

Probe: What did you dislike about this experience?

Probe: What could have made this experience better?

### **Key Questions (30 minutes)**

4. How do you think service-learning could be valuable when included in a major course?

Probe: How do you think service-learning would enhance your learning of academic content?

Probe: What benefit would it provide to the people you serve?

Probe: What types of health and exercise related skills do you think you could apply (or have applied) in a service-learning experience?

5. What do you think are the challenges or negative consequences of including service-learning in a major course?

Probe: What do you think would be challenging about applying class material in a real-life setting with real people?

6. Think about your ideal service-learning experience. What would it include?

Probe: What type of training would you need?

Probe: What types of setting or population would you like to work with?

Probe: How could the instructor make it better?

### **Concluding Questions (10 minutes)**

7. What motivates or drives you to participate in service-learning?

8. Is there anything else we have not talked about today that you were hoping to discuss?

Co-moderator gives a summary of the main points covered and responses provided-

Ex: "So far we have talked about ..... And you all mentioned..... Do you think this summary covers the main points we discussed today? Is there anything that I forgot or that I should to exclude?"

Thank participants for their time thus far. Direct participants to complete the survey and dismiss them following completion.

## Appendix C Survey

### C.1 Community Service Self-Efficacy Scale

*For each item rate your degree of confidence by circling a number from 0 to 100 using the scale below:*

<b>0</b>	<b>10</b>	<b>20</b>	<b>30</b>	<b>40</b>	<b>50</b>	<b>60</b>	<b>70</b>	<b>80</b>	<b>90</b>	<b>100</b>
----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	------------

*Cannot do at all*

*Moderately can do*

*Highly certain can do*

\*\*\*\*\*

If I choose to participate in community service in the future, I will be able to make a meaningful contribution.

0	10	20	30	40	50	60	70	80	90	100
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In the future, I will be able to find community service opportunities which are relevant to my interests and abilities.

0	10	20	30	40	50	60	70	80	90	100
---	----	----	----	----	----	----	----	----	----	-----

I am confident that through community service, I can help in promoting social justice.

0	10	20	30	40	50	60	70	80	90	100
---	----	----	----	----	----	----	----	----	----	-----

I am confident that through community service, I can make a difference in my community.

0	10	20	30	40	50	60	70	80	90	100
---	----	----	----	----	----	----	----	----	----	-----

I am confident that I can help individuals in need by participating in community service activities.

0	10	20	30	40	50	60	70	80	90	100
---	----	----	----	----	----	----	----	----	----	-----

I am confident that in future community service activities, I will be able to interact with relevant professionals in ways that are meaningful and effective.

0	10	20	30	40	50	60	70	80	90	100
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I am confident that through community service, I can help in promoting equal opportunity for citizens.

0	10	20	30	40	50	60	70	80	90	100
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*For each item rate your degree of confidence by circling a number from 0 to 100 using the scale below:*

0	10	20	30	40	50	60	70	80	90	100
<i>Cannot do at all</i>			<i>Moderately can do</i>				<i>Highly certain can do</i>			

\*\*\*\*\*

Through community service, I can apply knowledge in ways that solve “real-life” problems.

0	10	20	30	40	50	60	70	80	90	100
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Participating in community service, I can help people to help themselves.

0	10	20	30	40	50	60	70	80	90	100
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I am confident that I will participate in community service activities in the future.

0	10	20	30	40	50	60	70	80	90	100
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(Reeb et al., 1998)

## C.2 Student Service- Learning Inventory

*For each item rate your degree of confidence by circling a number from 0 to 100 using the scale below:*

0	10	20	30	40	50	60	70	80	90	100
---	----	----	----	----	----	----	----	----	----	-----

*Cannot do at all*

*Moderately can do*

*Highly certain can do*

\*\*\*\*\*

Ability to manage multiple responsibilities

0	10	20	30	40	50	60	70	80	90	100
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Ability to manage my time for school work and other responsibilities

0	10	20	30	40	50	60	70	80	90	100
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Ability to arrange transportation for myself off of campus as needed

0	10	20	30	40	50	60	70	80	90	100
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Ability to navigate Pittsburgh and the surrounding communities

0	10	20	30	40	50	60	70	80	90	100
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Ability to communicate with children and youth

0	10	20	30	40	50	60	70	80	90	100
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Ability to communicate with adults

0	10	20	30	40	50	60	70	80	90	100
---	----	----	----	----	----	----	----	----	----	-----

Ability to communicate with older adults

0	10	20	30	40	50	60	70	80	90	100
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Ability to communicate with those whose first language is different than my own

0	10	20	30	40	50	60	70	80	90	100
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Ability to solve real life problems in real time on my own

0	10	20	30	40	50	60	70	80	90	100
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*For each item rate your degree of confidence by circling a number from 0 to 100 using the scale below:*

0	10	20	30	40	50	60	70	80	90	100
---	----	----	----	----	----	----	----	----	----	-----

*Cannot do at all*

*Moderately can do*

*Highly certain can do*

\*\*\*\*\*

Ability to work with a team of my peers on a project

0	10	20	30	40	50	60	70	80	90	100
---	----	----	----	----	----	----	----	----	----	-----

Ability to solve real life problems in real time in a group of my peers

0	10	20	30	40	50	60	70	80	90	100
---	----	----	----	----	----	----	----	----	----	-----

Ability to learn new academic content

0	10	20	30	40	50	60	70	80	90	100
---	----	----	----	----	----	----	----	----	----	-----

Ability to apply academic content to a real-life setting

0	10	20	30	40	50	60	70	80	90	100
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Ability to reflect on what I have learned in a written format when my professor is the audience

0	10	20	30	40	50	60	70	80	90	100
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Ability to explain what I have learned to others (peers, classmates, friends, family)

0	10	20	30	40	50	60	70	80	90	100
---	----	----	----	----	----	----	----	----	----	-----

Ability to recognize my own social identity in regard to race, gender, socioeconomic status, religion, family structure, sexual orientation

0	10	20	30	40	50	60	70	80	90	100
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Ability to recognize how my social identity impacts my health

0	10	20	30	40	50	60	70	80	90	100
---	----	----	----	----	----	----	----	----	----	-----

*For each item rate your degree of confidence by circling a number from 0 to 100 using the scale below:*

<b>0</b>	<b>10</b>	<b>20</b>	<b>30</b>	<b>40</b>	<b>50</b>	<b>60</b>	<b>70</b>	<b>80</b>	<b>90</b>	<b>100</b>
<i>Cannot do at all</i>			<i>Moderately can do</i>				<i>Highly certain can do</i>			

\*\*\*\*\*

Ability to recognize inequities in access to optimal health

0	10	20	30	40	50	60	70	80	90	100
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Ability to recognize barriers that others may face for optimal health

0	10	20	30	40	50	60	70	80	90	100
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Ability to assist others in overcoming barriers they face for optimal health

0	10	20	30	40	50	60	70	80	90	100
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### C.3 Demographic Information

1. What is your year in school? Please check one.

Freshman ____	Junior ____
Sophomore ____	Senior ____

2. What is your gender? Please check one.

Female \_\_\_\_

Male \_\_\_\_

Other \_\_\_\_

Prefer not to answer \_\_\_\_

3. Which category best describes you? Check all that apply.

American Indian or Alaska Native \_\_\_\_

Asian \_\_\_\_

Black or African American \_\_\_\_

Hispanic, Latino or Spanish origin \_\_\_\_

Middle Eastern or North African \_\_\_\_

Native Hawaiian or Other Pacific Islander \_\_\_\_

White \_\_\_\_

Other race/ethnicity/origin (please specify) \_\_\_\_\_

Prefer not to answer \_\_\_\_

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