

PERCEIVED GAINS OF THE PEER TUTOR AND SUPPLEMENTAL INSTRUCTION
LEADER EXPERIENCES

Rebecca Cofer

Georgia Southern University

A Pre-Prospectus Draft Submitted to the Graduate Faculty at Georgia Southern University

In Partial Fulfillment of the Requirements for the Degree of

Educational Doctorate in Educational Leadership

STATESBORO, GEORGIA 2021

TABLE OF CONTENTS

CHAPTER 1

Introduction

Background

Statement of the Problem

Purpose Statement

Research Questions

Significance of the Study

Procedures/Research Methods

Definition of Key Terms

Chapter Summary

References

Appendix A

PERCEIVED GAINS OF THE PEER TUTOR AND SUPPLEMENTAL INSTRUCTION LEADER EXPERIENCES

CHAPTER ONE

Peer support has been utilized as a method to increase student retention, persistence and graduation rates, regardless of the institution type, size, or location. Whether in the form of peer tutoring, mentors, or health educators, scholars have found that peers are among the top influencers of college students (Astin, 1993; Kuh, 1995). College students' health behaviors, personal perceptions, learning, and even graduation rates are related to the peers with whom they come in contact while at college (Hill, 2017; Lundberg & Sheridan, 2015). In an effort to increase retention and graduation rates, initiatives like Complete College America (CCA) and the University System of Georgia's (USG) STEM Initiative have implemented specific peer educator programs across campuses. For example, the USG's STEM Initiative website (2021) lists innovative activities scholars use for implementation of grants awarded; three activities on this list involve peer support (STEM Initiative).

Peer education programs in higher education take on various forms and nomenclatures. Institutions have reciprocal peer tutoring, Supplemental Instruction (SI), and peer-assisted learning, and their respective programs provide benefits to the peer educators that have been overlooked in the literature. Peer teaching/tutoring is one of the meaningful experiences for students, and peer tutoring has always been viewed as a high impact practice for campuses (Newton & Ender, 2010). The National Survey on Peer Educators revealed growth in several dimensions for the peer educator, like knowledge acquisition, intrapersonal development, and campus connection (Wawrzynski et al., 2011). One of these peer educator programs is SI, a program created by Deanna Martin in the 1970s at the University of Missouri in Kansas City,

which aims to increase success in historically challenging classes (Malm et al., 2012). Whereas traditional interventions identified high-risk students for services, Martin's approach identified high risk courses and offered support to all students enrolled in the class through the use of an SI Leader (Martin & Blanc, 1981). As noted by Malm et al. (2012), research on the topic of SI is limited in the same way it is for peer tutoring, with the focus being chiefly on its potential for the students using the program.

While the success of peer educating is often studied in terms of the students served by the programs, there is less empirical research on the benefits of the experience for the peer educators. Abbot et al. (2018) opened their mixed methods study by arguing that far less scholars "have asked tutors directly about their experiences" (p. 245). Dating back to 2006, Stout and McDaniel acknowledged that practitioners had just begun to examine the benefits of SI for those in leadership roles. The desire to better understand the peer educator's experience may allow professionals to grasp the complexity involved in this type of role. Understanding how being a peer educator, whether that be a tutor or an SI Leader, can relate to the development and persistence of these students adds a new dimension to retention initiatives across higher education. Although peer education programs provide academic support to aid in persistence of the students being served (tutee and SI attendees), there is a gap in the literature addressing how the practice may influence academic performance and skillset gains of the peer educator and thus, further research is warranted.

Background

The use of peer educators are a common practice across college campuses, as research has found that one of the biggest influencers on college students are their peers; peers influence everything from college choice to learning to personal development (Astin, 1993; Kuh, 1995;

Lundberg, 2014; Derryberry & Thomas, 2000). However, the research on the peer educator experience, as seen in the peer tutor and the SI Leader role, in learning centers that house both roles is lacking. The use of peer educators on college campuses can take multiple forms, but there are few areas it is more evident than in college learning assistance programs (Wilson & Arendale, 2011). This background will begin with an explanation of the theoretical frameworks underpinning the study and then discuss the persistence and retention issues surrounding higher education. The background will then define the peer tutor and SI Leader role and how it positively affects issues of retention in higher education. Tutoring and SI facilitation will then be contextualized in terms of campus employment experience. While there is literature to support the argument that these two peer education roles serve as valuable tools for course persistence of the tutee and session attendee, there is not the same degree of empirical research on how the experience of serving as tutor or SI Leader may affect the retention of those peer educators, along with their academic and skillset gains

Theoretical Framework

Theoretical frameworks serve multiple purposes, but in quantitative studies like this one provide an “overarching explanation for how and why one would expect the independent variable to explain or predict the dependent variable” (Creswell & Creswell, 2018, p. 53). In studying the unique experience of peer educating at the college level, several theoretical frameworks provide a useful backdrop to the discussion of the perceived benefits for the peer tutor and SI Leader. Higher education has been challenged with issues of persistence and retention. Retention is the calculated percentage of students that return to an institution year after year while persistence is continued enrollment in an institution (Roberts & Styron, 2010).

Utilizing a framework based centrally on Astin's student involvement theory assists in an understanding of the practice of peer educating in higher education.

Although he acknowledged the volume of research on the topic of college impact, Astin (1993) stated that what currently existed was "either limited in scope, inadequate in design, or outdated" (p. 2). From this opinion, Astin (1985) proposed that a "high quality institution is one that maximizes the intellectual and personal development of its students" (p. 35). From this perspective, Astin developed the theory of student involvement, which asserted that student involvement was the critical aspect of student learning. The theory came about following earlier research on college dropout which led to Astin's 1977 investigation of the involvement concept on college persistence rates. Defining involvement as "the amount of physical and psychological energy that the student devotes to the academic experience," Astin (1984) explained the importance of student involvement in co-curricular activities in college (p. 518). In his longitudinal study, he identified factors in the college environment that significantly affected dropout rates (Astin, 1975).

A core principle of Astin's (1975) work was the development of the Input-Environment-Outcome (IEO) Model, a framework that can be applied to the study of the peer educator experience as it relates to academic and skillset gains for those peer educators. The basic components of this model include the inputs, environment, and outputs associated with the student college experience. Of relevance to the peer educator experience study is the environment, which Astin (1975) defined as "the various programs, policies, faculty, peers, and educational experiences to which the student is exposed" (p. 7). The output of the model is the student's characteristics after they have been exposed to the environment in the model. This final component of the IEO model, the output, was divided into three dimensions: 1) type of outcome

(cognitive or affective), 2) type of data (psychological or behavioral), and 3) time (during college or after college). In the sequel to *Four Critical Years*, Astin (1993) found 57 different measures of student involvement as part of the environment, one of which was labeled *Peer Factor VII: Outside Work*. As noted by numerous scholars in addition to Astin, one significant influence in college is their peer group (Astin, 1977; Pascarella & Terenzini, 1991). By their very nature, peer learning centers like those in this study are places of these peer group interactions.

Student Engagement and Persistence

Engagement is often defined as the activities students partake in that are linked to desired educational outcomes of an institution (Kuh, 2009). Engagement can also be defined in terms of the activities students participate in outside of the classroom, such as campus employment, Greek life, residence hall involvement, and student organization membership. It is these educationally purposeful activities that are connected to increased retention and graduation rates (Kuh et al., 2010). Astin's (1975, 1993) theory of involvement links these activities with developmental outcomes for students. It should be noted, though, that over involvement affected academic performance (Hu, 2010; Roberts & Styron, 2010). Specific activities have also been labeled as High Impact Practices (HIPs). HIPs are defined as activities that "make a claim on student time and energy in ways that channel student effort toward productive activities and deepen learning" (Kuh, 2009, p. 688). Peer educating, whether it be in a comprehensive center or a content-specific center, is a HIP for the tutee (Colver & Fry, 2016; Comfort & MacMahon, 2014; DeFeo & Caparas, 2014; Gardner, 2010).

Employment as Engagement

Campus employment can include internships, work study, and on-campus job experiences. Peer educators serving in a campus learning center is one type of employment opportunity. Although many students work out of necessity, this experience can also be impactful for those employed students. Research in the field of student persistence asserts that student employment is a type of engaged activity that can contribute to persistence, given specific hours and types of work (Pike et al., 2008). Martinez et al. (2012) explored this relationship between employment and persistence in low-income, first-generation college students. The study reported that students with on-campus, work study jobs had lower levels of resilience, which was contradictory to other research in the field. Wenz and Wei-Choun (2010) explored the GPA of employed students and found that employment had a negative relationship with GPA. In addition to contributing to the GPA and persistence of students, on-campus employment was found to impact professional attitudes of the students who were employed.

Peer Educators in the Campus Learning Center- Peer Tutors and SI Leaders

Research related to the broadly defined peer educator in the campus learning center is limited and largely separated between peer tutors and SI Leaders, with few studies examining both in the broad sense of the learning center peer educator. Instead, the peer educator on the college campus was studied in their work as peer health educators (Guldal et al., 2012; Wawrzynski & Beverly, 2012). One of these studies looked at a best practices model for the learning center peer educator, but beyond this instance, the research is limited regarding the topic.

Additionally, terminology for the roles of peer educators can vary across institutions and even campuses; however, Newton and Ender (2010) explored the concept of the peer educator saying, “they are experienced with the campus, they are economical to the budget, they can relate

to the situations of fellow students, and they are effective” (p. 3). Skipper and Keup (2017) argued that these roles go beyond that of peer educator; they elevated the role to that of a peer leader, based on the power of the peer influence in higher education. They openly admitted that the power of the peer leader was not a new concept in higher education, as it began in residential life and then in orientation programming. However, the researchers argued that understanding the effects of this experience for the peer leaders was “relatively underdeveloped” (Skipper & Keup, 2017, p. 96). Using data drawn from the 2009 National Survey of Peer Leaders, the study analyzed the frequency of the qualitative data and found prominent themes in the responses. Peer leaders found in the academic or community services role felt that their work improved their own academic skills, including writing and critical thinking (National Resource Center, 2009).

Noncognitive Skill Gains

When discussing the gains of these peer educators, it is important to distinguish between the common categories found in the literature. The first of these categories, noncognitive skills, can be defined as development in such areas as leadership, interpersonal relationships, and personal development (Ho & Jung, 2006). In the *EPI Briefing Paper*, Garcia (2014) included critical thinking, problem solving, social skills, emotional health, work ethic, and community responsibility as noncognitive skills. The body of research on the peer tutor and SI Leader noncognitive benefits includes most of these gains, with tutor noncognitive gains being more represented in the literature than those associated with the SI Leader experience (Al kharusi, 2016; Alsup et al., 2008; Bouthilette. 2016; Dvorak, 2001; Unger et al., 2014).

Peer Tutors

The literature on the noncognitive gains of the peer tutor began early and examined the experience from the context of social skills development. Perhaps the earliest study that explored

tutor benefits was Mann's (1994) research utilizing tutor journals. Among the findings from the journals was an understanding of the interpersonal dimension of the role. The journals expressed gains in managing conflict, an understanding of the multiple perspectives, and the nonverbal communication required of this skill. Another seminal study in the research, Dvorak (2001) also approached the topic of tutoring benefits from the vantage point of the peer tutor, namely at a large midwestern tutoring center. Between 2001 and 2008, limited research was done on the impact of tutoring on the tutor. Alsup et al. (2008) picked up on this research and connected the experience to future English teachers.

Over five years later, the topic was again discussed but this time in the context of writing center tutors' experiences. DeFeo and Caparas (2014) used qualitative methodology to study the experience of being a tutor. As is the case for much of the research on this topic, the experience was measured by each tutor's reflections and did not provide statistical data to support increased tutor persistence and graduation rates. In a similar vein, Unger et al. (2014) used a mixed methods approach to study the experience of the tutor in a physiotherapy program. Although the participants noted an increase in learning perspectives and communication skills, they seemed to misunderstand the impact the tutoring experience had on their listening, helping, and social skills. Researchers Arco-Tirado et al. (2011) added to the literature on skill-based gains, finding gains in the social and professional skillsets. Other researchers approached the noncognitive gains from differing vantage points, examining how tutors make meaning of their role, or exploring it from a global or even online dimension (Al Kharusi, 2016; Bouthillette, 2016; Boyd & Paterson, 2016).

SI Leaders

The SI Leader experience literature is no different from that of the tutor experience, as most studies conducted focused on academic performance and learning gains for the Leader. Although the literature is somewhat limited regarding noncognitive gains for the SI Leader, there are references to these gains focusing on skills related to future work. Additionally, the SI Leader experience research relied on largely qualitative tools to do so. Although some studies had a primary focus on session attendee gains, they still explored the value of the experience for the SI Leaders, as they tracked employment and increased skills in the workplace following the SI work semester (Goomas, 2014; Lozada and Johnson, 2018). One year later, Lozada and Johnson (2019) explored the experience again but this time through a transformative learning lens. They found these SI Leaders appreciated that the experience allowed them to connect with faculty members with whom they would not have otherwise. In addition to campus connection, the participants expressed internal changes such as a newfound ability to communicate with diverse groups (Lozada & Johnson, 2019). Although Mason-Innes (2015) found similar internal changes for the SI Leader, the impact of the experience was just one theme that emerged from the study.

Self-Confidence and Fulfillment

Serving in the peer educator role requires skills that often lead to increased levels of self-confidence and fulfillment for the tutors and SI Leaders in those roles. Stout and McDaniel (2006) categorize the sorts of effects as “enhanced personal development” (p. 58). Speaking specifically about the SI Leader experience, they explained the value of the role saying, “Student recognition of their growing leadership role promoted positive personal development, increased self-confidence, and enhanced self-esteem” (p. 58).

Peer Tutors

Peer tutors' unique job in learning centers allowed them to have a specific role on campus and many peer tutors noted the sense of fulfillment and increased self-confidence they found as a result of the job. In a seminal work on the tutor experience in the context of the campus writing center, Mann (1994) identified three groups of tutors: the High Group tutors benefited most from the experience, the Low Group tutors benefited the least, and the Moderate Group remained mostly stable. Although their studies spanned over ten years, DeFeo and Caparas (2014), Dvorak (2001), and Sneddon (2015) all found tutors reported feelings of fulfillment from their work in the learning centers, as they transformed into their roles as tutors.

Clarke et al. (2015) reported gains across multiple areas for the peer tutors, including the development of professionalism skills. Although the focus was on the tutors' confidence and preparation for teaching because of the experience, the peer tutors expressed additional benefits. The tutors also noted a sense of community they experienced because of their participation in the program. Al Kharusi (2016) found that not only did tutors note connections made through friendships as a result of the work, but all tutors reported feelings of fulfillment in their job. A more recent study by Abbot et al. (2018) alluded to the benefits of tutoring in terms of these same feelings of fulfillment. Boyd and Paterson (2016) examined this same gain but from a perspective unlike any in the literature thus far; their study was of graduate peer tutors working with online programs.

SI Leaders

When reviewing the literature on SI Leader gains, research related to self-confidence and fulfillment was highlighted. Starting in 2008 with Lockie and Van Laren's qualitative study, SI Leaders expressed gains in self-confidence. Malm et al. (2012) discussed the experience of the Science, Technology, Engineering, and Math (STEM) SI Leaders at a Swedish University's

Engineering Education program. Using unique questionnaires for two SI Leader sample groups, the study found that those SI Leaders who had just completed their role felt they had improved self-confidence due to their SI experience. The latter of the two sample groups, the graduated former SI Leaders, cited multiple benefits in hindsight, but did not mention the increase in self-confidence.

Through a qualitative phenomenological study, Eller (2016) explored the impact of the STEM SI Leader experience and how it related to the Leaders' expectations of the role, examining whether this changed over time. Shortly after Eller's study, Lozada (2017) examined the SI Leader experience at a private four-year university and, while the Leaders did not openly express increased self-confidence, one of the themes found was unanticipated fulfillment in helping others. Lozada and Johnson (2018, 2019) also explored the SI Leader experience related to activities following their work, but this time from a post-graduation or a post-role perspective, allowing for reflection on their fulfillment in the role. The studies found that having to facilitate sessions for a complex, foundational course allowed for increases in self-confidence.

Academic Performance and Learning

The category of academic performance and learning gains for the peer educator was framed in various manners across studies. For example, Arco-Tirado et al. (2011) discussed learning gains in the sense of metacognitive skill increases, in essence how tutors reflected on their learning processes. By comparison, Malm et al. (2012) assessed these gains in terms of the content knowledge gained in the SI Leader role. Academic performance gains were defined by some studies as scores on skills assessments or increased understanding of material in a course (DeBacker et al., 2012; Lockie & Van Laren, 2008). The study of learning gains for these peer

educators centered on metacognitive gains and awareness of learning styles (Blanc & Martin, 1994; De Backer et al., 2012)

Peer Tutors

In a review of research on the academic performance and learning of the peer tutor, there was a focus on the academic gains for tutors within the STEM and health science fields. Beginning in 2005 with their seminal study titled *Documenting Effective Education Practices* (DEEP), Kuh et al (2010) included teaching students as an effective practice when creating student agency at institutions. Much of the literature on tutoring integrates theories of metacognition as part of these academic gains. A later 2011 study was no exception to that trend as tutors' cognitive and metacognitive strategies were shown to have improved (Arco-Tirado et al., 2011). More recently, scholars have approached the topic of tutor benefits from a generalized teaching and learning perspective and found the work allowed the peer educators to reflect and assess learning. Fiorella and Mayer (2013) and Unger et al. (2014) both studied the peer tutors' work as it related to this teaching and learning lens and additionally found that learning was enhanced by the educators teaching others.

De Backer et al. (2012) returned to the focus on metacognition and studied the cognitive gains of the peer tutor in a Reciprocal Peer Tutor (RPT) program in both 2012 and 2015. Their earlier study found that metacognitive regulation skills had a clear difference at post test, and the 2015 study showed these same increased regulation levels while finding monitoring strategies to increase as well. Previous research about the benefits of tutoring for the tutor was either generalized or subject-specific in nature and ranged from a general discussion of campus employment to the skillsets gained through STEM-based tutoring experiences. Aligning with this trend, Dioso-Henson (2012) and Brannagan et al. (2013) both examined the peer tutoring

experience in STEM fields, in physics and nursing respectively, reporting increases in content knowledge. Pulling and Allen (2014) examined the academic gains not only regarding performance of skills but also examined whether the experience helped them teach these same skills more effectively. Beginning around 2014, studies of peer tutoring shifted to again center on the academic performance of the tutor (Iwata et al., 2014; Sneddon, 2015). Research in the area of tutor gains focused on content knowledge gains and metacognition but was restricted largely to STEM fields of tutoring.

SI Leaders

Research related to the SI Leader recognized the implications of this campus experience on these peer educators, as it also focused on both academic gains and learning. There was a wave of research about the Leader experience in the early 2000s but it dwindled off until reappearing in more recent years. While also recognizing the importance of training in the SI Leader experience, Stout and McDaniel (2006) reviewed several academic benefits for those that served in this peer educator role. In one of the earlier studies on the same topic, Blanc and Martin (1994) explained that these leaders could expect improvement in their academic performance after they learned about the student-centered pedagogy that surrounds SI.

Ning and Downing (2010) directly addressed the gains through phenomenology and did so related to science SI Leaders, a common occurrence in the corresponding peer tutor research. Their study continued with research related to Leaders' metacognitive gains and found that SI attendees had significantly larger improvements in their processing and motivation scores, when compared to non-SI attendees. Malm et al. (2012) also considered the benefits for SI Leaders in a STEM course, but this time for those no longer serving in the role and found a deeper understanding of content for a more recent group of previous Leaders. Congos and Stout's

(2003) earlier study should also be noted, as it approached these academic gains from a post-graduation perspective, allowing for both survey responses and follow-up prompts. Lozada and Johnson (2018) explored the SI Leader experience in a similar manner, connecting it to post-graduation life for the Leaders; part of the study directly addressed the academic gains.

Another unique positioning of the research occurred in a study of SI Leaders supporting courses in a Bachelor of Law degree. Rather than adhering to the basic format of benefits of the experience, Smuts (2002) asked Leaders to reflect on the least rewarding elements of the job and the effectiveness of training in preparing them. The SI Leaders in this global study reported an increased understanding and interest in teaching and learning. Some studies focused less on the direct gains of the experience and more on the effect of session planning and class auditing in the role (Lozada, 2017; Adams & Bush, 2013). Connecting to this idea of metacognitive gains, Mason-Innes (2015) found Leaders gained a greater sense of how people learn differently.

In conclusion, the literature surrounding the peer educator experience uses various lenses to examine the peer tutor and SI Leader roles as they relate to gains and persistence. Tutoring and SI have been discussed for their value in tutee and attendee academic support, the involvement in campus employment, and their relationship with the academic performance and skillset gains of those serving in the roles. These gains included academic performance in a course, communication skills, time management skills, and listening skills. Studies in this area have divided the research into subsets according to specific demographics like socio-economic status and student major. The literature, though, lacks a more thorough investigation of how the peer tutor experience relates to skillset, learning gains, and confidence and fulfillment.

Statement of the Problem

Most American higher education institutions have at least one peer education program on their campus, which can include SI and peer tutoring programs. These programs assist students in mastering both course content and success skills. Campus administrators and scholars alike agree that peer education serves as an important tool in student retention. However, the amount of resources, financially and otherwise, committed to these programs is not indicative of this importance. Peer education in higher education is undervalued and often does not see resource allocation that is proportionate to its value in student retention. Campus learning centers that normally house SI and tutoring programs often have one full-time staff member managing the center and can be restricted on space allocations, as campuses deal with issues of real estate availability. In most every sense, the higher education peer learning center is undervalued, but a critical resource for student success. The literature within the field of tutoring and SI reflects this same discrepancy.

Upon review of the literature, one finds limited literature regarding the experiences of the peer educator as seen in the roles of tutor and SI Leader. The limited research that has been conducted was through various methodologies but favored a qualitative approach. There is a need for a more holistic study of the experience of these unique peer educators and one that incorporates a quantitative methodology so as to offer a generalizable study. For peer tutor experience research there is a focus on specific content areas, namely in the STEM field; the research base for the SI Leader experience proves to be more inclusive of broad content areas but is almost exclusively qualitative in nature. Additional study is warranted to better explore the perceptions of the tutors and SI Leaders as they relate to gains of their experience in the peer education programs under which they serve.

Purpose Statement

The purpose of this study is to explore how the peer educator experience in the context of the campus learning center and how that experience is perceived in relation to potential gains by the students serving in those roles. Using a quantitative methodology, the study will examine the way these centers' peer educators view their experience in relation to short and long-term skill sets and gains and how these perceptions relate to length of time serving in the role or by the role themselves.

Research Questions

The research questions for this study are:

1. To what degree do students serving/having served as peer educators in the campus learning center perceive gains in their academic performance and/or learning, in their non-academic skillsets, and in their self-confidence and fulfillment?
2. How does length of experience serving as a peer educator relate to perceived gains of those peer educators?
3. How does the type of role of the peer educator in the campus learning center relate to their perceived gains?
4. To what degree is there a difference in perceived gains for the SI Leader and the peer tutor?

Significance of the Study

Research pertaining to increased student retention and persistence rates in higher education and the impact on peer education programs exists, but there is minimal empirical research and aligned literature of the benefits to the peer educator, namely the peer tutor and SI Leader, in an effort to better understand the experiences of a peer educator. This understanding may result in increased value placed on that experience, as it may correlate to increased retention

rates of the students that serve as peer tutors and SI Leaders. With evidence-supported research that tutoring adds not only to the retention of the peer tutors but also to their skillset development, the findings could be relevant to campus administrators searching for additional strategies to increase retention rates at their institution and in turn, funding initiatives may be further implemented. The current study will add to this under-utilized perspective of the tutor and SI Leader as the recipient of these benefits, but also will provide a unique context for studying the peer educator experience.

Additionally, learning center staff can implement training that draws most effectively on the strengths of the peer educator job in the learning center. Upon completion of the study, the findings may be utilized by staff to tailor the center's training agenda to meet the needs of the peer educator while also emphasizing the strengths they found in the experience previously. Further, by understanding the implications of peer tutoring on the student tutors and facilitating for the SI Leader, upper administrators can make informed decisions regarding funding and resources for the often-under-valued center on the college campus. Upon review of the literature on benefits for the tutor and SI Leader, one sees this topic is becoming an important piece of the retention discussion. However, most of the studies have been limited in research design (largely qualitative for SI Leader experience) and examined the relationship as it exists in subject-specific areas only and strictly as it applied to each role individually (STEM for the tutor experience). Finally, there exists limited research to date on the combined experience of the peer educator serving in the learning center.

Procedures

Quantitative research uses multiple methods, such as surveys, to study the relationships in numerical data and is rooted in the worldview of postpositivism. As Creswell and Creswell

(2018) noted, in this worldview, the researcher uses narrow hypotheses and data collection to argue for or against these hypotheses. While it will not utilize an experimental study as quantitative research can do, the study will use statistical procedures to examine the sample (Creswell & Creswell, 2018). Using a researcher-created instrument to explore the relationship among the variables will allow for a deductive testing of the research questions, a foundation of quantitative methodology. When considering the needed approach to this study of the peer educator, the researcher assessed goals of the study and the research questions posed.

Lochmiller and Lester (2017) argued that quantitative research allows one to explore an objective reality with a reality that can be concretely known to the researcher. Like most organizations, higher education is driven by data, and it is through quantitative research that estimates of population values can be based on collected data from samples that one can process and analyze this data in a more complete and useful manner (Creswell & Creswell, 2018). This specific methodology will be used in this study to provide this concrete data, as the researcher recognizes the nature of higher education, which is largely based on data analysis. While the researcher acknowledges that complete removal of bias is never possible, the quantitative procedures outlined below will allow for an uncovering of an independent truth (Lochmiller & Lester, 2017). This study will utilize a non-experimental design to analyze both descriptive statistics about the sample of peer educators and also inferential statistics to make inferences about the larger peer educator national population based on the study's sample of respondents. Creswell and Creswell (2018) described a non-experimental design as one that investigates the cause of something that has already happened. Since the study will only explore the perceptions of the experience, there will be no manipulation of an independent variable and thus, will not be experimental in design (Creswell & Creswell, 2018).

Setting

With the use of public professional organization listservs, this study will examine the peer educator experience in learning centers across the United States. Although the exact number of learning centers in the study will not be known until after data collection, the researcher hopes to have a clearer concept of N by requesting administrators reply with the total number of peer educators they distributed the instrument to in their center. To increase the likelihood of this information from the administrators, the researcher will raffle two \$100 gift cards to two center administrators that respond with their count of distributions. An Excel spreadsheet will be used to gather the distribution count from the administrators.

Each participant in this study will have the following characteristics in common: 1) they are employed as a peer educator (peer tutor or SI Leader) at an institution of higher education (college, university, technical school, community college), 2) they qualify as a student employee through their institution's definitions, and 3) the learning center in which they are employed is a peer learning center and employs mainly students. Although the learning centers will differ in size, type, mission, and student population, there will be consistency through the fact that they all employ largely student employees in the roles of SI Leaders and/or peer tutors; thus, allowing for consistency across the participants' settings. Each learning center's institution will be identified with a pseudonym.

Instrument

This study will utilize a survey with two parts; Part I is labeled Survey Items and asks for responses to items related to the peer educator experience. Part II is Demographic Information and asks participants to provide background on themselves, how they identify, and their center and institution. The instrument that will be used is a researcher-created tool that presents twelve

items in Part I that ask for feedback about peer educators' perceptions of gains in specific areas using a Likert scale, with 1 being 'strong disagree', 2 being 'disagree', 3 being 'neither agree nor disagree', 4 being agree, and 5 being 'strongly agree'. After exploring the literature on the peer tutor experience, a survey was created, which reflected themes in the literature. These twelve items reflect trends in peer educator perceived gains in the literature. The Likert scale items fall in to one of three categories of gains to include; 1) non-cognitive gains (i.e., social skills, communication skills), 2) self-confidence and fulfillment, and 3) academic performance and learning (i.e., GPA, metacognitive regulation). Following these items, the instrument asks participants to provide demographic data along with information about their institution, their peer educator role, and the center in which they served as a peer educator. Included in this demographic section is a "Center and Institution Characteristics" section, which will allow the peer educator to select the setting of their learning center.

The instrument in this study was applied to a previous study on the peer tutor experience and was published in a peer reviewed journal. A pilot of the instrument was sent to ten tutoring center professionals and changes were made based on the pilot group's feedback. Although originally used and published without the Center and Institution Characteristics items, this section was added to the tool for the current study so as to distinguish the type of institution and learning center since the participant pool was extended to include the nation and not just one institution, as was the case for its original use. Additionally, the instrument was augmented to include open-ended responses at the conclusion of the survey so as to provide continued perspectives from the peer educators in their own voices.

Participants

The participants in this study will be students employed currently or having served as a peer tutor or SI Leader within the last year at their respective institution's learning center. Due to the various student populations of each institution in the study, participants will vary in age, major, ethnicity, and other demographics. Additionally, the study will only seek participants from those who have served in the peer educator role for at least one semester/quarter prior to the survey date and who serve at colleges, universities, community colleges and technical schools.

Data Collection

To ensure as little bias in responses as possible, the survey will be administered via an anonymous link through Qualtrics. There will be two phases of the data collection, depending on the success of the initial recruitment of participants. The researcher will first seek participants using public listservs through two websites, to recruit both peer tutors and SI Leaders from across the nation. The first listserv, the Learning Assistance Professionals Listserv, has an audience of professionals employed at higher education learning centers. The second listserv, SI-Net, is through the University of Missouri at Kansas City (UMKC), and professionals in the Supplemental Instruction field largely utilize this listserv. This phase will last for four weeks. Depending on its success, the researcher may utilize direct emailed with professionals in the College Reading and Learning Association (CRLA), the National College Learning Center Association (NCLCA), and the Georgia Tutoring Association (GaTA) to seek participants from their centers. The researcher will begin by sending out the anonymous Qualtrics link in an email to listserv members and organization members. The researcher will rely on fellow learning center professionals to disseminate the survey to their respective peer educator groups. If this initial attempt does not illicit enough response after the survey is open for four weeks, the researcher will email center professionals directly in an effort to use a

more personalized communication strategy. The researcher aims for a 30% response rate on the survey, as Poynton, DeFouw, and Morizio (2019) found an average of four journals utilizing online surveys was 34.2%.

Data Analysis

A number of statistical tests will be run to answer the study's research questions. Additionally, descriptive statistics will be used to better understand the sample's demographics, including race, institution type, and length serving as a peer educator. After exporting the Qualtrics responses to SPSS, descriptive statistical measures will be utilized to understand the sample of the study, including the length of service as a peer educator, the type of center that houses them, and the institution's size. Creswell and Creswell (2018) argued that descriptive analysis should include the means, standard deviations, and range for the sample. Any missing data from the survey will be resolved using mean imputation. Findings from these descriptive statistics will be presented in table form and will be used to explore any relationships between the independent variable of survey scores per category and the dependent variables such as length of time serving as a peer educator, sex of peer educator, and role of peer educator.

The inferential statistics that will be run include an independent t-test to examine the relationship between perceived gains and the number of years serving as a peer educator. This test can also study the relationship between the type of educator, peer tutor or SI Leader, and the perceived gains. The researcher hopes to understand whether the type of role and length of time serving as such relates to the perceived gains in the three categories. Additionally, a correlation coefficient will be used to determine if the observed correlations of the sample in the study can be applied to a national study of learning center peer educators. The final inferential test to be

run will be regression testing, so as to assess if the role or length of time in the role is a good predictor of perceived gains for those serving in those peer educator roles.

Limitations, Delimitations, and Assumptions

Limitations were defined by Theofanidis and Fountouki (2018) as the potential weaknesses in a study that are beyond what the researcher can control, such as funding issues or statistical test constraints. Although every effort will be made to decrease bias and provide for validity in the study, there will be limitations in this study, as the researcher cannot control for all outside variables. For example, the peer educators who respond to the survey may have survey in both roles at their center which could present some challenges in reflection of their gains. A peer educator may receive the survey and wonder which role they should be reflecting on, as they may see gains specific to the SI Leader experience and the peer tutor experience. Each learning center staffs their center differently, with some peer educators serving in multiple roles. Additionally, in order to reach the peer educators from across the nation, the researcher will rely on the centers' administrators to disperse the survey to their peer educators. While reaching them through another individual is not ideal and cause some limitations, it is the option that allows for FERPA and IRB compliance in the study.

Delimitations are defined by Theofanidis and Fountouki (2018) as "the limitations consciously set by the authors themselves" (p. 157). In setting these boundaries, the researcher creates parameters of the study that make it more manageable. For the peer educator role experience, the central delimitation is the selection of which peer educators to seek as participants and who to include in the study. In developing this study, the researcher chose to seek participants that were either currently serving as a learning center peer educator or have done so in the past year. This decision was based out of a need for more recent reflection on the

role from the educators, recognizing that as time passed, they may have felt more distant from the experience. The researcher also made specific choices in which learning centers to seek participants from, focusing on those employing largely peer tutors and SI Leaders.

Data collection for this study was done through an anonymous Qualtrics survey, which allowed for peer educators to complete the survey in private and as such, it was assumed that responses were truthful and reflect the perceptions of the peer educator participants.

Additionally, it was assumed that the learning center administrators sought to disperse the survey to their peer educators did so for all current and recently employed peer tutors or SI Leaders within the past year, though there was no way to follow up on the accuracy of the communication from these professionals.

Definition of Key Terms

Learning center – While it is a challenge to define the campus learning center because of the “multiplicity of definitions and functions connected to the term” (p. 9), but its function provides a base. In essence, it is “where students can go to learn how to write, read, study, learn or do mathematic calculations, or learn a specific content area” (Truschel & Reedy, 2009, p. 18). For the purpose of this study, the phrase “learning center” will be used when discussing the peer learning centers, though the function of the centers may vary, as some will serve one type of tutoring or SI program or house multiple programs in one center.

Peer tutoring – Peer tutoring involves specific role taking between two parties, the person being tutored and the one tutoring and can encompass a variety of learning situations (Falchikov, 2001).

Tutor – The peer tutor is a student that has been selected based on “the excellence of their

Grades" to assist others in course content mastery and success skill development (Falchikov, 2001, p. 5).

Tutee – By comparison to the tutor the tutee is the student on the other end of the relationship, receiving tutoring.

Certification – When applied in the context of peer tutoring centers, it is the use of training programs for tutors that set standards and create consistency among tutoring centers across the globe. For tutoring, the College Reading and Learning Association's International Tutor Training Certification Program is the certification referenced in this study. "The paramount purpose of the CRLA's tutor certification process was to set an internationally accepted standard of skills and trainings for tutors" (Walker, 2016, p. 21).

Supplemental Instruction (SI) – Created in 1973 by Deanna Martin at the University of Missouri Kansas City, SI is a "non-remedial approach to learning that supports students toward academic success by integrating "what to learn" with "how to learn" (International Center for Supplemental Instruction). The program consists of weekly, scheduled voluntary, out of class SI sessions, which are driven by student needs and facilitated by an SI Leader. Courses supported by SI are those considered historically challenging.

Supplemental Instruction Leaders – UMKC's SI website defines SI Leaders as "trained peer leaders who utilize collaborative activities to ensure peer-to-peer interaction in small groups" (UMKC website). Malm et al. (2012) explain the Leader is a student that completed the course successful and can thus act as a model student. They note the key distinction that the Leader is not a teacher who imparts new knowledge, but instead

“facilitates the process of understanding difficult course content” (Malm et al., 2012, p. 32). For purposes of this study, the title SI Leader is capitalized to reflect the trademarked SI name and the title which these positions hold in the campus learning center.

Retention – Roberts and Styron define as “a calculation of the percentage of students who return to the same institution year after year” (p. 2).

Persistence – The National Student Clearinghouse defines persistence as “continued enrollment (or degree completion) at any institution” (Persistence & Retention- 2015).

Engagement – As seen in higher education, engagement is a complex concept that has been tackled differently by various scholars. In the simplest sense of the word, “student engagement refers to the contribution that students make towards their learning, as with their time, commitment and resources” (Krause & Coates, 2008).

Chapter Summary

The use of peer education as a strategy to increase retention and graduation rates is a long-standing approach, and as scholars and practitioners continue to recognize the impact peer learning can have on the recipients through increased persistence and attainment of learning objectives, its utilization will grow. However, there is a lack of empirical research as to how this peer educator experience, whether in the form of the tutor or the SI Leader, impacts the educator themselves. Peer tutoring and SI facilitation can be studied through various lenses, such as that of retention strategy and even the student employment experience, but additional research is needed about the way this on-campus engagement experience can contribute to tutors' and Leaders' academic and skillset gains.

Currently, scholars study the peer tutoring experience in a contextualized way, largely pertaining to tutors in the STEM fields and pre-professional medical fields. Research related to the SI Leader experience is broader in terms of discipline but leans toward qualitative methodology. This study aims to apply the research to the context of a peer learning center, which offers a variety of course support. Utilizing a quantitative methodology, the implications for this study include potential increased attention and support of the campus tutoring center and increased utilization of peer education. This study goes beyond the common qualitative approach utilized for this topic and will utilize quantitative data gathered from national participant recruitment to explore the broad-based topic of peer educators in the campus learning center.

Peer learning centers are a common element of most higher education campuses, but the extent to which they serve students is not matched by the financial support provided for these centers. Administrators should better understand how tutoring is a multi-dimensionally positive retention strategy, as the experience of peer educating allows the peer in that role to develop professional skills, interpersonal skills and academically. Additionally, it is important that the staff working in these centers understand the experience of tutoring, as this can directly affect training approaches and content. Across all levels of administration, college staff may be making uninformed decisions about their learning centers, whether it be regarding funding for the center or even content for center training. Using the data from this study, the institution may analyze various elements of the center and better support the student staff that are employed at the campus learning center.

References

- Abbot, S., Graf, A.J., & Chatfield, B. (2018). Listening to undergraduate peer tutors: Roles, relationships and challenges. *International Journal of Teaching and Learning in Higher Education, 30*(2), 245-261.
- Adams, J. D. & Bush, V.B. (2013). The relationship between supplemental instruction leader learning style and study session design. *The Learning Assistance Review, 18*(2), 51-66.
- Alsup, J., Conrad-Salvo, T., & Peters, S. J. (2008). Tutoring is real: The benefits of the peer tutor experience for future English educators. *Pedagogy: Critical Approaches to Teaching Literature, Language, Composition, and Culture, 8*(2), 327-347.
- Arco-Tirado, J. L., Fernandez-Martin, F. D., & Fernandez-Balboa, J. (2011). The impact of a peer-tutoring program on quality standards in higher education. *Higher Education, 62*, 773-788. <http://dx.doi.org/10.1007/s10734-011-9419-x>
- Astin, A.W. (1975). Preventing students from dropping out. Jossey-Bass. Retrieved from <https://programs.honolulu.hawaii.edu/intranet/sites/programs.honolulu.hawaii.edu/intranet/files/upstf-predicting-freshman-dropout.pdf>
- Astin, A.W. (1984). Student involvement: A developmental theory for higher education. *Journal Of College Student Development, 40*(5), 518-529.

Astin, A.W. (1993). *What matters in college? Four critical years revisited*. Jossey-Bass.

Bouthillette, K. (2016). Tutor, guide, lead: Examining the experiences of peer tutors. *Education Student Publications*, Paper 11, 1-55.

Boyd, S. & Paterson, J. (2016). Postgraduate peer tutors supporting academic skills in online programmes. *Journal of Learning Development in Higher Education*, 1-13.

Brannagan, K. B., Dellinger, A., Thomas, J., Mitchell, D., Lewis-Trabeauz, S., & Dupre, S. (2013). Impact of peer teaching on nursing students: Perceptions of learning environment, self-efficacy, and knowledge. *Nursing Education Today*, 33, 1440-1447.
<http://dx.doi.org/10.1016/j.nedt.2012.11.018>

Clarke, A.J., Burgess, A., Menezes, A., & Mellis, C. (2015). Senior students' experience as tutors of their junior peers in the hospital setting. *BMC Research Notes*, 8, 1-6.
<http://dx.doi.org/10.1186/s13104-015-1729-0>.

Cofer, R. (2020). The peer tutor experience: Tutor perceptions of academic and performance and skillset gains. *The Learning Assistance Review*, 25(1), 41-65.

Colver, M. & Fry, T. (2016). Evidence to support peer tutoring programs at the undergraduate Level. *Journal of College Reading and Learning*, 46(1), 16-41.
<http://dx.doi.org/10.1080/10790195.2015.1075446>

Comfort, P. & McMahon, J.J. (2014). The effect of peer tutoring on academic achievement.

Journal of Applied Research in Higher Education, 6(1), 168-175.

<http://dx.doi.org/10.1108/JARHE-06-2012-0017>

Congos, D. & Stout, B. (2003). The benefits of SI leadership after graduation. *Research and*

Teaching in Developmental Education, 20(1), 29-41.

Creswell, J.W. & Creswell, D.C. (2018). *Research design: Qualitative, quantitative, and mixed*

methods approaches. Los Angeles: SAGE.

De Backer, L., Keer, H. V., & Valcke, M. (2012). Exploring the potential impact of reciprocal

peer tutoring on higher education students' metacognitive knowledge and regulation.

Instructional Science, 40(3), 559-588. <http://dx.doi.org/10.1007/s11251-011-9190-5>

De Backer, L., Keer, H. V., & Valcke, M. (2015). Promoting university students'

metacognitive regulation through peer learning: The potential of reciprocal peer tutoring.

Higher Education, 70, 469-486. <http://dx.doi.org/10.1007/s10734-014-9849-3>

DeFeo, D. J. & Caparas, F. (2014). Tutoring as transformative work: A phenomenological case

study of tutors' experiences. *Journal of College Reading and Learning*, 44(2), 141-163.

<http://dx.doi.org/10.1080/10790195.2014.906272>

Derryberry, W.P. & Thomas, S.J. (2000). The friendship effect: Its role in the development of

- Moral thinking in students. *About Campus: Enriching the Student Learning Experience*, 5(2), 13-18. <https://doi.org/10.1177%2F108648220000500204>
- Dioso-Henson, L. (2012). The effect of reciprocal peer tutoring and non-reciprocal peer tutoring on the performance of students in college physics. *Research in Education*, 87, 34-49.
- Dvorak, J. (2001). The college tutoring experience: A qualitative study. *TLAR*, 6(2), 33-46.
- Eller, J.L. (2016). *Investigating the Supplemental Instruction leader experience: A phenomenological study of undergraduate peer educators*. [unpublished doctoral dissertation]. Liberty University.
- Falchikov, N. (2001). *Learning together: Peer tutoring in higher education*. Routledge Falmer.
- Fiorella, L., & Mayer, R. (2013). The relative benefits of learning by teaching and teaching expectancy. *Contemporary Educational Psychology*, 38, 281-288.
<http://dx.doi.org/10.1016/j.cedpsych.2013.06.001>
- Garcia, E. (2014). The need to address noncognitive skill in the education policy. Economic Policy Institute- EPI Briefing Paper #386. Retrieved from <https://files.epi.org/2014/the-need-to-address-noncognitive-skills-12-02-2014.pdf>

- Goomas, D.T. (2014). The impact of Supplemental Instruction: Results from an urban community college. *Community College Journal of Research and Practice*, 38(12), 1180- 1184. <http://dx.doi.org/10.1080/10668926.2013.854182>
- Hill, A.J. (2017). The positive influence of female college students on their male peers. *Labour Economics*, 1-28.
- Hu, S. (2010). Reconsidering the relationship between student engagement and persistence in college. *Innovative Higher Education*, 36(2), 97-106.
<http://dx.doi.org/10.1007/s1-855-010-9158-4>
- IBM Corp. (2016). IBM SPSS Statistics for Windows (Version 24.0) [computer software].
IBM Corp.
- Iwata, K., Furmedge, D.S., Sturrock, A., & Gill, D. (2014). Do peer-tutors perform better in examinations? An analysis of medical school final examination results. *Teaching Strategies*, 48, 698-704. <http://dx.doi.org/10.1111/medu.12475>
- Krause, K.-L., & Coates, H. (2008). Students' engagement in first year university. *Assessment F & Evaluation in Higher Education*, 33, 493-505.
- Kuh, G.D. (1995). The other curriculum: Out-of-class experiences associated with student learning and personal development. *The Journal of Higher Education*, 66(2), 123-

155.

Kuh, G. D. (2009). What student affairs professionals need to know about student engagement.

Journal of College Student Development, 50(6), 683-706.

Kuh, G. D., Kinzie, J., Schuh, J. H., & Whitt, E. J. (2010). *Student success in college: Creating*

conditions that matter. Jossey-Bass.

Lochmiller, C.R. & Lester, J.N. (2017). *An introduction to educational research: Connecting*

methods to practice. SAGE.

Lockie, N.M. & Van Laren, R.J. (2008). Impact of the Supplemental Instruction experience on

science SI leaders. *Journal of Developmental Education*, 31(3), 2-14.

Lozada, N. (2017). The benefits of Supplemental Instruction (SI) for the SI leader. *Supplemental*

Instruction Journal, 3(1), 64-79.

Lozada, N. & Johnson, A.T. (2018). Bridging the Supplemental Instruction leader experience

And post-graduation life. *The Learning Assistance Review*, 23(1), 95-114.

Lozada, N. & Johnson, A.T. (2019). Perspective transformation in the Supplemental Instruction

(SI) leader. *Journal of Transformative Education*, 17(2), 112-132.

<http://dx.doi.org/10.1177/1541344618774544>

Lundberg, C.A. (2014). Peers and faculty as predictors of learning for community college

Students. *Community College Review* 42(2), 79-98.

<http://dx.doi.org/10.1177/0091552113517931>

Lundberg, C.A. & Sheridan, D. (2015). Benefits of engagement with peers, faculty, and diversity for online learners. *College Teaching*, 63, 8-15.

<http://dx.doi.org/10.1080/87567555.2014.972317>

Malm, J., Bryngfors, L., & Morner, L. (2012). Benefits of guiding Supplemental Instruction sessions for SI leaders: A case study for engineering education at a Swedish university.

Journal of Peer Learning, 5, 32-41.

Mann, A.F. (1994). College peer tutoring journals: Maps of development. *Journal of College Student Development*, 35, 164-169.

Martin, D.C. & Blanc, R. (1981). The learning center's role in retention: Integrating student support services with department instruction. *Journal of Developmental & Remedial*

Education, 4(3), 21-23.

Martinez, E. F., Bilges, D. C., Shabazz, S. T., Miller, R., & Morote, E. (2012). To work or not to work: Student employment, resiliency, and institutional engagement of low-income,

first-generation college students. *Journal of Student Financial Aid*, 42(1), 28-39.

Mason-Innes, T.A. (2015). *The leadership identity development of Supplemental Instruction*

leaders: A case study. [unpublished doctoral dissertation]. University of Calgary.

<http://doi.10.11575/PRISM/28231>

Newton, F.B. & Ender, S.C. (Eds.), *Students helping students: A guide for peer educators on college campuses* (pp.xi-xvii). Jossey-Bass.

National Resource Center- University of South Carolina. (2009). *2009 National Survey of Peer*

Leaders. [Data file]. Retrieved from

https://sc.edu/nrc/system/pub_files/1532445488_0.pdf

Ning, H.K. & Downing, K. (2010). The impact of supplemental instruction on learning

competence and academic performance. *Studies in Higher Education*, 35(8), 921-939.

<http://dx.doi.org/10.1080/0307570903390786>

NSC Research Center. (2016). Persistence & retention- 2015. National Student Clearinghouse.

Retrieved from <https://nscresearchcenter.org/snapshotreport-persistenceretention18/>

Pascarella, E.T. & Terenzini, P.T. (1980). Predicting freshmen persistence and voluntary . *The*

dropout decisions from a theoretical model. *Journal of Higher Education*, 51(1), 60-75.

Pike, G. R., Kuh, H. D., & Massa-McKinley, R. (2008). First-year students' employment,

engagement, and academic achievement: Untangling the relationship between work and

grades. *NASPA Journal*, 45(4), 560-582.

Poynton, T.A. DeFouw, E.R., & Morizio, L.J. (2019). A systematic review of online response rates in four counseling journals. *Journal of Counseling & Development, 97*, 33-42.

<http://dx.doi.org/10.1002/jcad.12233>

Pulling, A.R. & Allen, R. (2014). Impact of a peer-tutoring course on skill performance, assessment, and instruction. *The Physical Educator, 71*(2).

Roberts, J., & Styron, R. (2010). Student satisfaction and persistence: Factors vital to student retention, *Research in Higher Education Journal, 6*, 1-18. Retrieved from

<http://www.aabri.com/manuscripts/09321.pdf>

Skipper, T.L. & Keup, J.R. (2017). The perceived impact of peer leadership experiences on college academic performance. *Journal of Student Affairs Research and Practice, 54*(1),

95-108. <http://dx.doi.org/10.1080/19496591.2016.1204309>.

Smuts, K.B. (2002). The role of student leaders in supplemental instruction. *SAJHE/SATHO, 16* (3), 225-231.

Sneddon, P.H. (2015). The attitudes and experience of student-tutors to peer tutoring in higher education. *Journal of Learning Development in Higher Education, 1*-16.

Stout, M.L. & McDaniel, A.J. (2006). Benefits to Supplemental Instruction leaders. *New Directions for Teaching and Learning, 106*, 55-62.

<http://dx.doi.org/10.1002/tl.233>

The International Center for Supplemental Instruction. (2020). *What is Supplemental*

Instruction? University of Missouri- Kansas City. Retrieved from

<https://info.umkc.edu/si/>

Theofanidis, D. & Fountouki, A. (2018). Limitations and delimitations in the research process.

Perioperative Nursing , 7(3), 155-162. <http://doi.org/10.5281/zenodo.2552022>

Unger, M., Keiller, L., Inglis-Jassiem, G. & Hanekom, S.D. (2014). Teaching my peers:

Perceptions of tutors in physiotherapy practical skills training. *African Journal of Health*

Professions Education, 6(2), 203-206. <http://dx.doi.org/10.7196/AJHPE.497>.

STEM Initiative. (2021). University System of Georgia- Academic Affairs Division. Retrieved

from https://www.usg.edu/academic_affairs_and_policy/stem

Truschel, J., & Reedy, D. L. (2009). National survey—What is a learning center in the 21st

century? *The Learning Assistance Review*, 14(1), 9-22. Retrieved from

https://nclca.wildapricot.org/resources/Documents/Publications/TLAR/Issues/14_1.pdf

Walker, L. (2016). Learning centers and International Tutor Training Program Certification: An

Interview with Rick Sheets. *Journal of Developmental Education*, 39(2), 20-22.

Wawrzynski, M.R., LoConte, C.L., & Straker, E.J. (2011). Learning outcomes for peer

educators: The National Survey on Peer Education. *New Directions for Student Services*, 133, 17-27. <http://dx.doi.org/10.1002/ss.381>

Wenz, M., & Wei-Choun, Y. (2010). Term-time employment and the academic performance of undergraduates. *Journal of Education Finance*, 35(4), 358-373.

Wilson, W.L. & Arendale, D.R. (2011). Peer educators in learning assistance programs: Best practices for new programs. Conservancy.unmn.edu

APPENDICES

Appendix A

Survey on Peer Educator Experiences

Note: The survey was created in the online Qualtrics software tool. The questions have been replicated here, but the formatting and presentation are different.

Survey on Peer Educator Experiences

The purpose of this survey is to study the attitudes and experiences of being a peer tutor at a university in Georgia. There are two parts to this survey, the demographics section and the tutoring experience section.

The purpose of this study is to examine the experience of being a peer educator, as it relates to perceptions of their academic and skillset gains. Significant amounts of research exist on the relationship about peer tutoring gains for the tutees or SI session participants gains, but less on the experience for the peer educator. The procedures to be followed in this study will be the completion of a 12-item survey with a demographics section.

The risks associated with this study should be considered very minimal because participants will only be reflecting on their experiences as a peer educator and data collection is anonymous.

Possible benefits to future peer educators include using feedback from this study to better fund the peer education program. Additionally, feedback from the survey will allow administrators of the center to reflect on the training and professional development of the peer educators employed through the center and make changes as needed. The completion of the survey should take approximately 10-15 minutes.

The data will be maintained in a secure location for a minimum of 3 years following completion of the study. Since the survey is anonymous, you will not be identified by name in the data set or any reports using information obtained from this study, and your confidentiality as a participant in this study will remain secure. In addition, your IP address will not be recorded. Subsequent uses of records and data will be subject to standard data use policies that protect the anonymity of individuals and institutions.

Participants have the right to ask questions and have those questions answered. If you have questions about this study, please contact the researcher named above or the researcher's faculty advisor, whose contact information is located at the end of the informed consent. For questions concerning your rights as a research participant, contact Georgia Southern University Office of Research Services and Sponsored Programs at 912-478-5465.

Peer educators that complete the survey will be entered to win a gift card in the amount of \$100 (8 gift cards raffled off in total), if they choose to participate via the survey item related to the raffle. By creating a workflow and associated link for the raffle survey, the researcher can keep participants anonymous while also allowing for raffle entry. However, your participation in this study is completely voluntary; in other words, you may refuse to participate, or you may refuse to answer any question(s) on the survey. There is also no penalty for deciding not to participate in the study and you may withdraw without penalty or retribution. You must be 18 years of age or older to consent to participate in this research study. If you consent to participate in this research study and to the terms above, please continue to the survey (see link below). Your

completion and submission of the survey will indicate your consent for me to use your responses in my research report. Thank you so much for taking the time to complete the survey and participating in this study.

Part I: Survey Items

Please respond to the below statements by circling the number that reflects the extent to which you agree or disagree with each statement. For current peer educators, think about your experiences so far. For former peer educators, think back on your experience while in the tutoring role. Below is the 5-point Likert scale that should be used when rating the statements.

1= Strongly Disagree

2= Disagree

3= Neither Agree nor Disagree

4= Agree

5= Strongly Agree

1. Serving as a peer educator increased my self-confidence.

1 2 3 4 5

2. Serving as a peer educator improved my academic performance.

1 2 3 4 5

3. Serving as a peer educator improved my communication and listening skills.

1 2 3 4 5

4. Serving as a peer educator improved my own time management skills.

1 2 3 4 5

5. Peer educating gave me feelings of fulfillment and accomplishment.

1 2 3 4 5

6. I developed a better sense of responsibility through my peer educator position.

1 2 3 4 5

7. Being a peer educator allowed me to develop more patience.

1 2 3 4 5

8. Being a peer educator helped me be more aware of the learning process for myself.

1 2 3 4 5

9. Being a peer educator helped me be more aware of the learning process for my tutees.

1 2 3 4 5

10. My experience as a peer educator helped me develop social skills, such as working with diverse groups and empathy skills.

1 2 3 4 5

11. Being a peer educator made me feel more connected to the college.

1 2 3 4 5

12. I believe that the skills I gained being a peer educator will benefit my future professional life.

1 2 3 4 5

13. Would you like to enter a raffle for the chance to win 1 of 8 \$100 gift cards for participating in this survey?

YES

NO

Part II: Demographic Information

Gender:

Male _____

Female _____

Nonbinary/Third Gender _____

Prefer to Self-describe _____

Prefer not to respond _____

Academic Level: Freshman Sophomore Junior Senior Former Tutor

Peer Educator Role:

Peer tutor _____

SI Leader _____

Both peer tutor and SI Leader _____

Primary Peer Educating Area:

Writing/Humanities _____

Social Sciences _____

Math _____

Science _____

Business _____

Agriculture/Natural Resource Management _____

Other _____**Years Served as a Peer Educator:** Less than 1 year 1 2 3 4+**Race:** White/Caucasian Black/African American Hispanic/Latino

Asian/Pacific Islander Other Multiracial Prefer not to respond

Center Information

Which of the following best describes the learning center you were/are employed. Check all that apply.

- Writing center
- Graduate learning center

- Supplemental Instruction Program
- STEM center
- General center- is the only center for my campus and covers most courses
- Business center
- Math center or Emporium
- Developmental education center- covers remedial/pre-college credit courses
- Grant-funded center (such as TRIO)
- Language center
- Center housed under a disability services office

Institution Information

Please select the items that best describe your institution (may check more than one item):

Check all that apply.

- Community college
- Technical school
- Private institution
- Historical Black College or University (HBCU)
- Large state institution (size XXXX...)
- Small state institution (size XXXX...)
- Liberal arts institution

Survey Item Grid

Research Questions:

1. To what degree do students serving/having served as peer educators in the campus learning center perceive gains in their academic performance and/or learning, in their non-academic skillsets, and in their self-confidence and fulfillment?
2. How does length of experience serving as a peer educator relate to perceived gains of those peer educators?
3. How does the type of role of the peer educator in the campus learning center relate to their perceived gains?

4. To what degree is there a difference in perceived gains for the SI Leader and the peer tutor?

Survey Item	Item Topic	Research Literature
2, 8, 9	Academic performance and learning	Tutor- Al Kharusi (2016); Galbraith & Winterbottom (2011); De Backer, Van Keer & Valcke (2012); Fiorella & Mayer (2013); Dioso-Henson (2012) SI Leader- Stout & McDaniel (2006); Blac & Martin (1994); Lockie & Van Laren (2008); Ning & Downing (2010); Malm et al. (2012); Congos & Stout (2003); Lozada & Johnson (2017, 2018, 2019); Smuts (2002); Adams & Bush (2013)
1, 5, 11	Self-confidence and fulfillment	Tutor- Al Kharusi (2016); Iwata, Furmedge, Sturrock & Gill (2014); DeFeo & Caparas (2014) SI Leader- Lockie & Van laren (2008); Malm et al. (2012); Eller (2016); Lozada (2017); Lozada & Johnson (2018); Lozada (2019)
3, 4, 6, 7, 10, 12	Social and professional skills (non-cognitive skills)	Tutors- Al Kharusi (2016); Arco-Tirado, Fernandez-Martin & Fernandez-Balboa

		<p>(2011); Dioso-Henson (2012); Brannagan, Dellinger, Thomas, Mitchell, Lewis-Trabeaux & Dupre (2013); DeFeo & Caparas (2014)</p> <p>SI Leaders- Lozada & Johnson (2018, 2019); Mason-Innes (2015); Goomas (2014)</p>
--	--	---