INVESTIGATING THE SUPPLEMENTAL INSTRUCTION LEADER EXPERIENCE: A PHENOMENOLOGICAL STUDY OF UNDERGRADUATE PEER EDUCATORS

by

James Louis Eller

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Education

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ABSTRACT

The purpose of this transcendental phenomenological study was to describe the experiences of undergraduate students who serve as Supplemental Instruction (SI) leaders at a mid-sized, private research university in the Midwestern United States. Using Schlossberg's transition theory as a theoretical framework, this study attempted to answer the central research question: What is the experience of students who serve as SI leaders at a mid-sized, private research university located in the Midwestern United States? Sub-questions sought to address student expectations moving into the experience, how expectations were met or not met as they moved through the SI leader experience, the expected and unexpected outcomes as they moved out of the experience, and what students perceive to be the value of their experience beyond their tenure as an SI leader. Criterion, intensity, and maximum variation sampling were used to secure 12 co-researchers who experienced the phenomenon of serving as an SI leader at the research site. Data collected through questionnaires, interviews, archival records, and focus groups revealed four themes: (a) importance of relationships, (b) engagement for self and others, (c) valuing teaching and learning, and (d) developing intrapersonal skills for life, learning, and work. The study findings and limitations, implications for practitioners, and recommendations for future research are discussed.

Keywords: accreditation, learning outcomes, National Peer Education Survey (NPES), peer-education, student engagement, Supplemental Instruction (SI), transition theory

Dedication

I dedicate this work to my family, first and foremost to my loving wife, Debbie. From the day I met you so long ago, you have inspired me to be the best that I can be and to believe that anything is achievable if I only put my heart and passion into it and trusted the mercy and wisdom of God to guide me. You are truly the shining example of all that is good in this world.

To my daughters, Megan and Stephanie, without your unfailing love and encouragement (and sometimes outright badgering), this work would not have been possible. Your reassuring cheers of "you can do it, Dad" and "never quit" provided me the focus and motivation I needed when I was feeling stressed and overwhelmed. And your company on those trips to the Liberty University campus were a refreshing, much needed, change of pace along the journey.

To my parents, you taught me what is truly important in life by your example and by sharing the lessons of your own lived experiences. There is no greater window into the future than an appreciation and understanding of the past.

Finally, I dedicate this work to God and His Son, my Lord and Savior, Jesus Christ. Once again, you have shown your people the power of your abundant mercy, unending grace, and perfect wisdom. Only you could have brought me to this place . . . and only you know where you will lead me. "And the God of all grace, who called you to his eternal glory in Christ, after you have suffered a little while, will himself restore you and make you strong, firm and steadfast." 1 Peter 5:10, NIV

Acknowledgments

Many talented people contributed to this work and are deserving of my gratitude and thanks. First, are the 12 former SI leaders who served as co-researchers in this study. Their willingness to take time out of their very busy lives to share their SI leader experiences with me is deserving of my most heartfelt appreciation and deepest gratitude. Thank you! Knowing and working with such a thoughtful, passionate, and caring group of young people has been the highlight of my higher education career. You are all truly "rock stars!"

Countless thanks to my committee chair, Dr. Fred Milacci for his guidance and encouragement and to Dr. Lucinda Spaulding for encouraging me to reach out to him to serve as my committee chair. Thanks to Dr. Amy McLemore and Dr. Jessica Haberman for serving on my committee and for their expert counsel and feedback. A special thanks to SI leaders Abby Fogle and Nicole Thompson for participating in the pilot study and providing helpful insight on how to improve my data collection instruments.

Thanks to Rev. Burton Robinson for introducing me to Liberty University. It was not by accident that you encouraged me to consider Liberty University after I had been unsuccessful in my two-year search for an institution and program that met my academic interest. I truly believe God put us together in that restaurant in Woodbridge, Virginia!

Finally, I want to acknowledge two people who have unknowingly had more of an impact on my formal education than they will ever know—my high school assistant principal, Mr. Lee Hoeffel for teaching me that learning does not always take place in a classroom; and my high school guidance counselor, Mrs. Thelma Clark for seeing value in me as a person.

Table of Contents

List of Tables

List of Figures

List of Abbreviations

Academic Engagement Survey (AES)

Academic Entitlement Questionnaire (AEQ)

American Management Association (AMA)

Higher Order Thinking Skills (HOTS)

Learning and Study Strategies Inventory (LASSI)

National Council Licensure Examination for Registered Nurses (NCLEX-RN)

National Peer Education Survey (NPES)

Peer-Assisted Study Sessions (PASS)

Resident Assistant (RA)

Resident Study Group Program (RSGP)

Science, Technology, Engineering, and Math (STEM)

Supplemental Instruction (SI)

University of Missouri-Kansas City (UMKC)

CHAPTER ONE: INTRODUCTION

Overview

The purpose of this transcendental phenomenological study was to describe the experiences of undergraduate students who serve as SI leaders at a mid-sized, private research university in the Midwestern United States. This opening chapter provides a comprehensive background of the problem that informs the purpose of this study and shapes the research questions it attempted to answer. It outlines the research plan and details the delimitations and limitations I set to guide this study. The chapter concludes with definitions of terms pertinent to the study.

Background

Educators and employers in the United States are questioning the quality of learning and acquired competencies of some of today's college graduates (Arum, 2013). Similarly, as college tuition continues to increase and the nation's job market remains stagnated, more parents and students are questioning the benefits of pursuing a college education (Doyle, 2011; Willie, 2012; Wood, 2011). The regional, national faith-related, national career-related and programmatic accrediting agencies have the responsibility of ensuring that the education provided by institutions of higher learning meets an acceptable level of quality. By achieving this recognition, potential students and their parents and the general public have some basis upon which to evaluate the value of their education investment and the quality of the earned degree.

As institutions of higher learning strive to maintain accreditation, enhance the quality of the educational outcomes of their students, and improve their institutional appeal to future students and the employers who may hire them as college graduates, there is a growing necessity in higher education to demonstrate learning outcomes beyond earned grades and diplomas.

Qualitative research to determine learning outcomes experienced as a result of student engagement activities can contribute to meeting this important goal (Henning, 2012; Wawrzynski, LoConte, & Straker, 2011). One such student engagement activity is Supplemental Instruction (SI)—an activity in which students engage with other students, staff, and faculty as learners and as peer educators. Although the effectiveness of SI for students who participate in the program is well documented in the literature, little qualitative research has been conducted to describe the learning experiences of students who serve as SI leaders.

SI is an academic support program developed in 1973 by Deanna Martin at the University of Missouri-Kansas City (UMKC). The program is grounded primarily in cognitive and intellectual development theories including Piaget's Stage Theory of Cognitive Development, Perry's Theory of Intellectual and Ethical Development, and Vygotsky's Social Development/Learning Theory; however, it has also shown relevance and practical implications to student development theories such as Tinto's retention theory, Astin's involvement theory, and Pascarella's general model for assessing change (Arendale, 1997). SI relies on students to serve as peer educators, or SI leaders, responsible for facilitating group learning activities outside of regularly scheduled class meetings that are intended to reinforce content presented in a traditionally challenging course (Arendale, 1997; Hurley & Gilbert, 2008). According to the basic UMKC SI model outlined by Hurley and Gilbert, students who serve as SI leaders must have demonstrated proficiency with the course material, be recommended by faculty to serve in the position, and receive training on how to effectively lead SI sessions.

Since its beginning, SI has been helping students succeed in traditionally difficult college courses (Hurley & Gilbert, 2008). Originally intended to improve persistence and retention rates of undergraduate students, the program has been validated by the United States Department of

Education to improve grades and increase rates of persistence for students who participate in the program regardless of ethnicity or prior academic achievement (Arendale, 1997; Dawson, van der Meer, Skalicky, & Cowley, 2014). Sufficient numbers of quantitative studies conducted over recent decades have shown the outcomes of participating in SI on grades (Anderson, 2014; Bonsangue et al., 2013; Fayowski & MacMillan, 2008; Lockie & Van Lanen, 2008; Ning & Downing, 2010; Oja, 2012; Parkinson, 2009; Peterfreund, Rath, Xenos, & Bayliss, 2008; Porter, 2010; Rath, Peterfreund, Bayliss, Runquist, & Simonis 2012), persistence (Bronstein, 2008; Oja, 2012), and retention (Anderson, 2014; Terrion & Daoust, 2012). However, there is little research focused on the students who serve as the major contributors to the successes of the program—the SI leaders themselves.

Studies related specifically to SI leaders that have been undertaken, such as Congos and Mack (2005); Donelan and Kay (1998); Hurley, McKay, Scott, and James (2003); Latino and Unite (2012); Stone, Jacobs, and Hayes (2006); and Wallace (1992), all provide only a limited perspective of the SI leader experience. These studies center on the immediate benefits realized by the peer educators, but they do not address the circumstances and motivations that led students to the experience, the challenges associated with transitioning in, through, and out of the experience, nor do they investigate whether or not the experience has any long-term benefits for SI leaders. Furthermore, most of the data presented in these studies are anecdotal in nature and were not collected and analyzed using a rigorous qualitative research method. Although other studies by Smuts (2002), Lockie and Van Lanen (2008), and Wawrzynski et al. (2011) utilize a more thorough methodology, these too lack a holistic focus on the experience. This study used a transcendental phenomenological methodology to thoroughly and rigorously investigate how students who serve as peer educators describe (1) their experience as SI leaders including the

circumstances and motivations for seeking the position; (2) the challenges of moving in, through, and out of the experience; and (3) any residual benefits beyond their tenure as an SI leader.

Situation to Self

My motivation for this study stems from my desire to understand the learning outcomes gained by students who serve as SI leaders. As higher education administrators continue to justify the financial and human resources needed to sustain academic support programs, it is important for co-curricular departments to move beyond traditional usage and user satisfaction data and capture research-based learning outcomes. Similarly, as accreditation agencies move beyond binary measures such as yes/no or offer/do not offer to assess the support services provided by an institution, they are asking institutions to describe the learning-outcomes that are being produced as a result of the services. This research study was intended to give me, and other higher education administrators, insight into the learning outcomes of the student SI leader experience. As such, as a researcher and educator, I approached this undertaking from an ontological view of reality grounded in a social constructivism interpretive framework. Creswell (2013) describes these philosophical assumptions as the belief that reality is constructed through our lived experiences with the environment and with one another and that multiple realities exist based on the diversity of those lived experiences. Although the demands of an SI leader are the same for each student who serves in the role, each will necessarily experience the role differently and will perceive a unique reality as a result of the experience. It is the essence of the reality experienced by these student leaders that I endeavored to describe in this study.

Problem Statement

The rising cost of a college education and the tightening of the American job market are causing students and parents to question the benefits of a college education (Doyle, 2011; Willie,

2012; Wood, 2011). Additionally, more administrators, educators, and employers are questioning the quality of learning outcomes and competencies of some college graduates (Arum, 2013). Furthermore, peer education and student engagement programs are growing in popularity in higher education (Wawrzynski et al., 2011), as is the need to assess the intended and unintended outcomes of such programs. As institutions of higher learning strive to increase efficiency and effectiveness, qualitative assessment of student experiences such as involvement in the SI program is necessary to fully define, describe, and understand the outcomes associated with these activities (Henning, 2012; Wawrzynski et al., 2011). Although a vast number of quantitative studies have shown the benefits of SI on student grades, persistence, and retention, little research, especially rigorous qualitative research, has focused on the students who have the vital task of facilitating the program as SI leaders. The problem this study sought to address is the lack of quality qualitative data that demonstrate the intended and unintended learning outcomes and benefits associated with peer education and student engagement programs as part of a college education.

Purpose Statement

The purpose of this transcendental phenomenological study was to describe the experiences of undergraduate students who serve as SI leaders at a mid-sized, private research university in the Midwestern United States. For the purposes of this study, the SI leader experience was understood as the situation and circumstances that led to the pursuit of the SI leader position, the expectations prior to starting the SI experience, the realities lived during the experience, and the perceived value of the experience after the conclusion of the SI leader tenure. By capturing the essence of this student experience through qualitative methods and the theoretical lens of Schlossberg's (1981, 2011) transition theory, a framework for understanding

the transition process, information has been added to the body of literature on SI, especially the outcomes associated with the experience of students who serve as SI leaders as they transition from their roles as learners to the roles of peer-educators.

Significance of the Study

This phenomenological study has empirical and practical significance for students and parents, researchers, higher education professionals, higher education administrators engaged in accreditation, and employers of college graduates. For parents and students who are concerned about the value of a college experience in view of rising costs, this study revealed additional benefits that can be obtained during a post-secondary education experience beyond grades and diplomas (Willie, 2012). For higher education professionals responsible for creating and providing students opportunities for active engagement, results of this study can aid in justifying dedicating resources to such programs as SI. Additionally, favorable outcomes revealed in this study can be used by institutional marketing professionals to positively enhance an institution's image to its constituencies (Henning, 2012). Furthermore, two of the core accreditation criteria of the Higher Learning Commission North Central Association of Colleges and Schools (the accrediting body for the institution that served as the research site for this study) are that (1) an institution provides support services to meet the needs of students and (2) the institution be able to demonstrate any claims it makes relating to student educational experiences (Higher Learning Commission, n.d.). This study provides higher education administrators responsible for accreditation activities an effective model for capturing data on learning outcomes derived from student engagement and educational experiences for use in satisfying accreditation requirements. Finally, for potential employers of college graduates, the results of this study provide a clear

demonstration of the quality of learning and competencies associated with the SI leader experience (Arum, 2013).

Results of this study also have theoretical significance for researchers of higher education, student experiences, and transition. Using Schlossberg's (1981, 2011) transition theory as a lens through which to view the SI leader experience, this study sought to provide a description of student experiences as they transition from their roles as college learners to college peer-educators. More specifically, it provides a description of their experiences moving in, moving through, and moving out of the transitional experience.

Research Questions

This study focused on the experiences of student SI leaders and sought to investigate the essence of their collective experiences using a transcendental phenomenological research design, and it was guided by the theoretical framework of transition theory to better understand the transition process (Anderson, Goodman, & Schlossberg, 2012; Chickering & Schlossberg, 2002; Schlossberg, 1981, 2011; Schlossberg, Lynch, & Chickering, 1989). Data was collected directly from the students who experienced the SI leader phenomena to address the following central research question and associated guiding questions (Creswell, 2013):

Central Research Question

How do students who serve as peer educators at a mid-sized, private research university located in the Midwestern United States describe their experience as SI leaders? As students navigate their way through the college experience, one of the best predictors of success and development is student engagement (Kuh, Kinzie, Schuh, Whitt, & Associates, 2010). This central question aimed at understanding the student engagement activity of being an SI leader and to understand the experience.

Guiding Question One

What were participants' expectations for being an SI leader prior to the experience? In this study, the SI leader experience was described through the theoretical framework of transition theory (Anderson et al., 2012; Chickering & Schlossberg, 2002; Schlossberg, 1981, 2011; Schlossberg et al., 1989). As a contributing theory to the broader student development theory, transition theory provides a lens to see many student engagement experiences as transitions whereby students move in, move through, and move out of expected events such as student engagement activities where students may experience changes in roles, relationships, or assumptions (Schlossberg, 2011). This question sought to describe the expectations students had for the experience and the circumstances and motivations that led them to "move in" to the role of SI leader and the challenges they first encountered (Anderson et al., 2012: Chickering & Schlossberg, 2002; Schlossberg, 2011; Schlossberg et al., 1989).

Guiding Question Two

In what ways were participant expectations met or not met during the SI leader experience? This question aimed to describe "moving through" the expected event. Anderson et al., (2012) established that a person arrives at this stage of the transition process when they "know the ropes" (p. 57). Once SI leaders arrive at this stage of their experience, it is expected that they would then be able to determine if their expectations for the SI leader role were met or not met and what challenges, if any, they experienced and how they overcame them.

Guiding Question Three

What expected and unexpected outcomes did participants experience during the SI leader experience? As with research question two, this question was intended to further describe the "moving through" phase of the expected event. Appropriately, Schlossberg's (1981) transition

theory finds its place in student development because, as students who serve as SI leaders undergo the transition in their roles as peer educators, it is likely they are developing psychosocially, cognitively, emotionally, ethically, and socially at the same time. Smuts (2002) found that students who serve as SI leaders develop a sense of personal adequacy as well as improved communication and relationship building skills. Furthermore, they find more meaning and use for previously learned subject matter that, in some cases, helped improve their own grades. Additionally, students who serve as SI leaders develop workplace and citizenship skills. Similarly, other studies on peer educators have confirmed these findings as well as other outcomes related to learning, leadership, relationships, and academic and cultural competencies (Ashwin, 1994; Frisz, 1984; Hurley et al., 2003; Latino & Unite, 2012; Lockie & Van Lanen, 2008; Martin & Arendale, 1993; Martin & Wilcox, 1996; Wallace, 1992; Stout & McDaniel, 2006).

Guiding Question Four

How do participants describe the short-lived and enduring influences of their SI leader experience? Finally, this question sought to describe the "moving out" phase of the expected event and was intended to provide co-researchers an opportunity to reflect on their SI leader experience to identify in what ways, if any, it contributed to their undergraduate experience and their lives or careers since. This stage can mark the end of one period of transition and the "moving in" to the next transition whether it be a new role in the organization, graduation, or the start of a new job (Anderson et al., 2012).

Research Plan

This qualitative study utilized the transcendental phenomenological research method to investigate how students experienced their roles as SI leaders. Because this study focused on the

perspectives of SI leaders and their meaning of their experiences, a qualitative research approach was appropriate for this work (Creswell, 2013). The outcome of this research was a holistic description of the essence of the SI leader experience that was derived from the textual and structural descriptions produced in the data analysis process. As such, this study met the aim of phenomenological inquiry in that it determined what the SI leader experience was for the students who actually experienced it and who provided a detailed accounting of the experience (Moustakas, 1994). However, unlike a hermeneutical approach to understanding a phenomenon that seeks to interpret and apply meaning to the experiences of the students who serve as SI leaders (Van Manen, 1990, 2014), this study employed a transcendental approach that focused solely on describing the SI leader experience as it existed by setting aside my own prejudgments in order to reach a "transcendental state of freshness and openness, a readiness to see in an unfettered way, not threatened by the customs, beliefs, and prejudices of normal science" (Moustakas, 1994, p. 41).

Definitions

The terms and definitions listed below are pertinent to this study and are grounded in the literature related to the topic, theoretical framework, or research design of this study.

1. *Moving in* – The first stage of the transition process. The point when a person moves in to a new transition situation (Anderson et al., 2012). For the purposes of this study, *moving in* is the point at which a student first determines to become an SI leader and experiences the initial challenges associated with the position.
2. *Moving through* – Anderson et al. (2012) identify that a person arrives at this stage of the transition process when they "know the ropes" (p. 57). It is not realistic to expect that a student ever masters the position of SI leader. However, SI leaders at the research site

undergo extensive training during their first semester in the position and do not have the opportunity to settle fully into their roles. Therefore, for the purposes of this study, an SI leader is considered to be established in the position after two semesters, at which time they can be expected to "know the ropes" (p. 57).

3. *Moving out* – This stage can mark the end of one period of transition and the "moving in" to the next transition, whether it be a new role in the organization, graduation, or the start of a new job (Anderson et al., 2012; Schlossberg, 1989).
4. *Qualitative research* – Qualitative research is a process that investigates research questions related to human or social issues through data collection methods that take place in a natural setting to the people or places being studied and that utilizes inductive and/or deductive data analysis procedures to produce descriptions or interpretations of the problem or issue being studied (Creswell, 2013).
5. *Transcendental phenomenology* – Transcendental phenomenology is a qualitative research methodology in which the researcher sets aside prejudgments and prior knowledge about participants or the lived experience being studied (the phenomenon) in order to develop an unbiased description of the *what* and *how* of the phenomenon that is then synthesized to form a description of the phenomenon's essence (Moustakas, 1994).
6. *Transition* – A transition is an event or non-event that results in a change in assumptions about oneself and the world and thus requires a corresponding change in one's behaviors and relationships (Schlossberg, 1981, p. 5).

Summary

The quality of learning and competencies gained by many of today's college graduates is being questioned by key constituencies in the United States (Arum, 2013). More parents and

students are beginning to question the value of their tuition dollars as the job market remains stagnant (Doyle, 2011; Willie, 2012; Wood, 2011). Furthermore, regional accrediting agencies are requiring institutions of higher learning to provide data that demonstrate that they are meeting an acceptable level of quality in their educational practices (Higher Learning Commission, n.d.). This provides potential students, their parents, and future employers some basis upon which to evaluate the value of their financial investment and the quality of the earned degree. As colleges and universities work to enhance the quality of the educational outcomes of their students, there is a growing necessity to demonstrate learning outcomes that go beyond grades and diplomas. Qualitative research to determine learning outcomes experienced as a result of student engagement activities can contribute to meeting this important need (Henning, 2012; Wawrzynski et al., 2011). This qualitative research study investigated the experiences of students who engaged as peer educators and sought to describe the outcomes of the SI leader experience.

CHAPTER TWO: LITERATURE REVIEW

Overview

This chapter provides an overview of the literature and theoretical framework of SI. It begins with a discussion on the theoretical framework for this study and follows with a review of related literature about the SI program in the context of other academic support programs. Specifically, this chapter includes (1) details on the design of the basic SI model, (2) the SI leader selection and training processes, (3) a description of an SI session and the activities to facilitate student understanding, (4) the effectiveness of SI on student academic performance in domestic and international institutions and on targeted student populations, (5) the residual benefit to students who participate in SI, and (6) the impact of the program on students who serve as SI leaders. The chapter concludes with a summary of the content and establishes the gap in the literature this study attempted to fill.

Theoretical Framework

Student development theories (i.e., psychosocial development, cognitive-structural theories, person-environment interaction theories, and typological models) have guided student affairs practices in higher education since the early twentieth century. They provide a framework to help this group of education professionals to create programs, services, activities, and opportunities that go beyond traditional classroom experiences to develop the whole college student (Pascarella & Terenzini, 2005). Not a single theory, student development theory is an umbrella term that encompasses several theories intended to explain how young adults develop and mature (Evans, Forney, Guido, Patton, & Renn, 2010). Evans et al. group these complementary theories into three categories, (a) those that comprise foundational theories that

are psychosocial or cognitive-structural in nature,[1] (b) those that are social in nature that help students understand their social identities such as race, gender, or sexual orientation,[2] and (c) those theories that are integrative in nature because they seek to provide understanding of how students develop as a number of factors occur simultaneously.[3] It is in this last category that Schlossberg's (1981) transition theory finds its place under the student development umbrella. As students are developing psychosocially, cognitively, emotionally, ethically, and socially, they are likely to experience some form of transition that will require resources and help to cope with what Schlossberg calls, "the ordinary and extraordinary process of living" (p. vii). It is through the lens of Schlossberg's transition theory that this study will view the SI leader experience.

Schlossberg (1981) defined transition as "an event or non-event that results in change in assumptions about oneself and world and thus requires a corresponding change in one's behavior and relationships" (p. 5). These events or non-events often result in one of three forms of transitions. According to Schlossberg (2011):

> These types of transitions include anticipated transitions, unanticipated transitions, and non-event transitions. Anticipated transitions are those major life events that people typically expect to take place such as graduating from secondary or post-secondary school, getting married, beginning a first job, becoming a parent, changing career fields, or retirement after a prolonged work experience (p. 159).

Unanticipated transitions are those events that occur unexpectedly and that are often disruptive to one's routine or life such as loss of job, unexpected promotion, serious health-

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[1] For example, Chickering's (1969) Theory of Identity Development, Perry's (1970) Theory of Intellectual and Ethical Development, and Kolb's (1984) Theory of Experiential Learning

[2] For example, Racial Identity Development (Cross & Fhagen-Smith, 2001), Multiracial Identity Development (Renn, 2003), Sexual Identity Development (Cass, 1979), and Gender and Gender Identity Development (Bem, 1993)

[3] For example, Development of Self-Authorship (Kegan, 1982; Magolda, 2000), Development of Faith and Spirituality (Fowler, 2000; Parks, 1986), Human Ecology Theory (Bronfenbrenner, 1993), and Campus Ecology Theory (Banning & Kaiser, 1974)

related issue such as surgery or illness, or having to move far away from one's home or family or friends. Non-event transitions are the events people expect to take place but that fail to occur, such as not getting married, not receiving the promotion, not becoming a parent, not being in a position to be able to change career fields, and not being able to retire. Regardless of the type, transitions impact people—their roles, their relationships, their routines, and their assumptions. Therefore, as students who serve as SI leaders accept the additional responsibilities of their new roles, it is expected that they experience a form of transition. However, the type of transition may vary from student to student. Some students may anticipate that they will be selected to serve as an SI leader while other students who apply for a position may not anticipate that they will be selected, therefore making their transition to the position unanticipated.

The process of transitioning roles, relationships, routines, and assumptions takes time and resources and can elicit various feelings and reactions (Schlossberg et al., 1989). Schlossberg's transition theory identifies four sets of factors, referred to as the 4 S's, that influence how a person copes with transition—situation, self, supports, and strategies (Evans et al., 2010; Schlossberg, 1989, 2011; Schlossberg et al., 1989). *Situation* refers to the person's situation at the time of transition and encompasses the factors that led to the transition, a person's perceived level of control in the transition, and whether or not the transition is viewed as positive or negative. *Self* refers to one's abilities to cope with the transition. *Self* factors are classified into two categories: personal and demographic characteristics and psychological resources. The first can include gender, race, socio-economic status, or age. The second can include one's level of optimism, determination, motivation, and ability to manage adversity and ambiguity (Evans et al., 2010). *Supports* include the support available to a person at the time of the transition. This can include formal and informal training, mentoring and on-going professional development, and

opportunities for reflection and to learn from one's experiences. *Strategies* are those responses to transition that modify the situation, control the meaning of the immediate problem, or manage the stresses derived as a result of the transition.

According to Schlossberg (1989) and Anderson et al. (2012), transitions take place in three steps—moving in, moving through, and moving out. *Moving in* is the first stage of the transition process and is the point when a person moves in to a new transition situation (Anderson et al., 2012). For the purposes of this study, *moving in* was the point at which a student first determines to become an SI leader. *Moving through* is when a person arrives at the stage of the transition process when they "know the ropes" (p. 57). It is not realistic to expect that a student ever masters the position of SI leader. However, SI leaders at the research site underwent extensive training during their first semester in the position and did not have the opportunity to settle fully into their roles. Therefore, for the purposes of this study, an SI leader was considered to be established in the position after two semesters, at which time they can be expected to "know the ropes" (Anderson, et al., 2012, p. 57). *Moving out* marks the end of one period of transition and the "moving in" to the next transition, whether it be a new role in the organization, graduation, or the start of a new job (Anderson et al., 2012).

Critiquing and discussing the future direction and use of Schlossberg's transition theory within the context of the student development theory umbrella, Evans et al. (2010) offered the following assessment:

> [Schlossberg and others] have evolved an excellent model to facilitate understanding and action with regard to transition . . . . The framework is comprehensive in scope, highly integrative of other theoretical contributions, and conceptually and operationally sound. The authors have taken a vast array of writings and gleaned the most important

> concepts from them, added their insights, and created a dynamic model that can provide a solid foundation for practice that is responsive to both commonalities and idiosyncrasies. Schlossberg's openness to criticism and her willingness to revise and extend her theory since its inception have resulted in a practical resource for assisting college students in dealing with change. Because the structure of the theory places so much emphasis on consideration of the individual's perspective and the specifics of the situation, Schlossberg has provided a tool that readily allows for the integration of individual and cultural differences (p. 225).

However, while the authors acknowledged the initial studies that have supported Schlossberg's transition theory, such as a study of men who were laid off from their jobs at the National Aeronautics and Space Administration (NASA) (Schlossberg & Leibowitz, 1980), university clerical workers (Charner & Schlossberg, 1986), and adult college learners (Schlossberg et al., 1989), Evans, et al. (2010) asserted that "research studies supporting its validity are scant, particularly in higher education . . . until further research is conducted, however, it is impossible to affirm that the transition process occurs in the manner in which Schlossberg and her colleagues have outlined it" (pp. 225-226). To further validate the theory, Evans et al. suggested that "qualitative research might present a better place to start in that transitions could be viewed holistically, as perceived by individuals experiencing them" (p. 226). As mentioned in the theoretical significance portion of this manuscript, this study does just that.

Many SI leaders first encounter the SI program by attending SI sessions themselves. At the study site, the SI program supports primarily first-year courses; and most SI leaders begin their tenure in the position at the start of their second, or sophomore, year. It is during their first-year SI experience that many SI leaders first envisioned themselves in the SI leader role, and it is

also likely the time they decided to pursue a position as an SI leader. Therefore, at the time a student decides to apply for an SI leader position, it is reasonable to assume that he or she is confident in his or her ability to perform in the position and that he or she views the process of becoming an SI leader as a positive one, since to not be of this mindset would be counterintuitive for a student desiring to do well academically. However, because a potential SI leader has only a limited exposure to the SI leader experience, it is unlikely that he or she is fully cognizant of his or her ability to cope with the new situation (self), or the resources and training he or she will need to perform well in the position while maintaining his or her own academic responsibilities (supports), or the practices and habits he or she will need to develop to effectively manage the demands and stresses of the position (strategies). Therefore, as students who serve as SI leaders are themselves developing psychosocially, cognitively, emotionally, ethically, and socially, they are likely to experience some form of transition moving in, through, and out at the same time that will require resources and help to effectively navigate the SI leader experience. This makes Schlossberg's transition theory a unique, and most appropriate, lens through which to view the SI leader experience.

Related Literature

The roots of peer education in the United States can be traced to colonial America (Newton & Ender, 2010). Today, peer educators are fixtures on 78% of college campuses and serve in a range of instructional capacities from those focused on admission and orientation events to first-year and academic support programs (Brack, Millard, & Shah, 2008; Carns, Carns, & Wright, 1993; Padgett & Keup, 2011; Salovey & D'Andrea, 1984). No longer is the use of undergraduate peer educators experimental to aid in providing programs and services to other students; it has become absolutely essential (Carns et al., 1993). However, not only are these

peer educators extremely helpful in relieving some of the burdens of faculty and staff, through their paraprofessional experience, they themselves receive exceptional opportunities for development (Yamauchi, 1986). This is especially relevant to peer educators who serve in academic support roles responsible for providing course content and study skills assistance to other students.

Academic support programs, such as one-on-one peer tutoring that bring individual students with knowledge of course material together with students seeking clarification and understanding, are common and can take numerous forms. These types of peer education programs are reactive in nature because students who serve as peer tutors need to do little or no preparation prior to meeting with a student for a tutoring session. Tutors come to the tutoring session with an understanding of the course material and respond to student questions in a way that is most suitable and advantageous to the learner. However, SI is an academic support program in which content knowledge alone is not preparation enough for a student to meet the responsibilities of an SI leader. SI leaders have the unique challenge of planning and leading both small and large groups of students in specific, planned, and strategic learning activities intended to facilitate the learning process (Arendale, 1997; Blanc, DeBuhr, & Martin, 1983; McDaniel, 2008). Therefore, these students must learn how to nurture and maintain professional relationships with faculty and staff and foster peer relationships with diverse groups of students. Additionally, they must develop and employ basic instructional skills to help them plan and execute learning activities necessary to facilitate student understanding of challenging course material (McDaniel, 2008). In essence, students who serve as SI leaders must transition from their familiar roles as students to the more complex roles of students who are also peer educators responsible for improving the academic performance of other students.

Supplemental Instruction (SI)

SI was developed in 1973 by Deanna Martin at the UMKC as an academic support program to target historically challenging courses for the purposes of increasing student retention. As many traditional academic support programs were limited to at-risk students or students performing at a low level, the creator of SI intended it to be a resource open to all students enrolled in the course in which it is assigned. The SI program is rooted primarily in the cognitive and intellectual development theories of Piaget (1964), Perry (1970), and Vygotsky (1978, 2011). Piaget posited that schemas are basic building blocks of knowledge and that children develop by progressing through stages. Similarly, Perry theorized that students develop intellectually and ethically through three stages: dualism, multiplicity, and relativism. Finally, through his social development theory, Vygotsky suggests that social interaction precedes learning and that students can achieve higher cognitive development (the Zone of Proximal Development) through social engagement with other students (More Knowledgeable Other). In addition to the theories of Piaget, Perry, and Vygotsky, SI has also shown relevance and practical implications in other student development theories including Tinto's (1993) retention theory that proposes that student integration into the larger campus community can decrease student attrition and improve retention; Astin's (1993) theory of involvement that states that in order for students to learn and grow they must be actively engaged in their environment, and Pascarella and Terenzini's (2005) theories for how students change during the course of their college experience.

Initially offered in courses in the health sciences, the SI program was later expanded to other courses at UMKC. In 1981, after undergoing a rigorous evaluation process, SI was awarded designation as an Exemplary Educational Program by the United States Department of

Education (DOE). Since its creation, the use of SI has expanded to hundreds of institutions around the world and has had three claims related to its effectiveness validated by the DOE: (a) students who participate in SI earn higher mean final course grades than students who do not, regardless of ethnicity and prior academic achievement; (b) students who participate in SI succeed at a higher rate than those who do not participate, as indicated by lower withdraw rates and lower percentages of D or F final course grades; and (c) students who participate in SI persist from semester to semester and graduate at a higher rate than students who do not participate in SI (Arendale, 1997; Blanc et al., 1983; Stone & Jacobs, 2008). Today, students and faculty are realizing additional benefits associated with SI including its contribution to maintaining high academic standards, the cost-effectiveness of the SI model over individual tutoring programs, that SI meets the pragmatic needs of students such as higher grades and degree completion, that SI avoids the remedial image often generated by more traditional academic support programs, that SI is non-threatening to students and creates a sense of community among students, and that SI offers students transferable study skills and strategies that can be used in other courses (Martin & Wilcox, 1996; Wilcox, 1993). Furthermore, SI has shown to improve course completion rates, short-term and long-term retention of course material, academic engagement, and fostering of social relationships (Dawson et al., 2014). For institutions, SI supports high standards, enhances the classroom experience, and undergoes rigorous quantitative and qualitative evaluation that goes beyond more subjective forms of evaluation such as student and staff perceptions of the program (Martin & Wilcox, 1996). Finally, students who serve as SI leaders develop leadership and communications skills and improve academic competency in their subject areas (Martin & Wilcox, 1996).

The Basic SI Model

Because SI is a structured academic support program one might conclude that every SI program is configured the same. On the contrary, the literature shows that the variations of SI programs are nearly as numerous as the studies that have been conducted to show the effectiveness of the program. However, despite the numerous differences in nearly every SI program, there are elements that necessarily transcend every SI program and align them with the model established by Martin in 1973. According to the basic UMKC SI model, SI must: (a) be assigned to specific courses; (b) involve students, faculty, an SI supervisor, and SI leaders; (c) include an element of training for SI leaders; (d) contain SI sessions; (e) include activities to enhance understanding of course material; and (f) broaden student study and learning strategies (Hurley & Gilbert, 2008).

SI is intended to support courses in the first-year or gate-keeper courses (typically first level college courses taken for credit or initial courses within a given college major) that have a history of 30% or higher rate of withdraws or grades of D or F. However, SI is often assigned to courses based on class size or status as a prerequisite or gate-keeper course (Hurley & Gilbert, 2008). SI assignment can also be made on a variety of variables or based on the unique needs of an institution such as the availability of other support services or resources, the perceived level of difficulty of the course material by students or the course instructor, or the desire to provide continuity in support for students across an academic semester or year. Although the circumstances under which SI is applied to a course can vary from institution to institution, the components needed to sustain a successful SI program are universal.

A four-legged stool is a perfect metaphor to describe a viable SI program; without each of the four legs doing their part, the stool collapses and ceases to be a stool. The viable SI

program requires the support of students, faculty-members, an SI supervisor, and student SI leaders (Hurley & Gilbert, 2008). The primary benefactors of SI are the students who take advantage of the program. However, without their attendance and participation in SI sessions, the program serves little purpose. Faculty-members are essential for vouching for the content knowledge of SI leader candidates and for advocating for the program by encouraging students to attend and participate in SI sessions. Additionally, faculty-members serve as direct resources for SI leaders for questions or concerns related to course material. The SI supervisor is overall responsible for the administration of the program. This responsibility includes identifying courses to be supported by SI; recruiting, training, and mentoring SI leaders; and assessing the effectiveness of the program (Hurley & Gilbert, 2008).

SI Leader Selection

Students who serve as SI leaders must have demonstrated proficiency with the course material, be recommended by faculty to serve in the position, and receive training on how to effectively lead SI sessions (McDaniel, 2008; Stone & Jacobs, 2008). McDaniel identifies the minimum qualifications for students to serve as SI leaders as: (a) having at least sophomore status, (b) having a cumulative grade point average of at least 3.0, (c) having earned a grade of A in the course for which they are serving as an SI leader, and (d) being recommended by a faculty-member. In addition to these academic qualities, an SI leader candidate must possess exceptional communication skills to collaborate with faculty-members and the SI supervisor, and they must have a demeanor that is friendly and considered approachable by students who might attend their SI sessions.

SI Leader Training

SI leader training and development is an essential component of a viable SI program. Once selected to be SI leaders, students must receive training to prepare them for the rigors of their SI responsibilities that begin on the first day of the semester. A formal training course and on-going mentoring can be instrumental in relieving or at least reducing the level of stress and anxiety a student may feel once they are engaged fully in the experience (Winston & Buckner, 1984).

The International Center for SI at the University of Missouri-Kansas City (2006) recommends that SI leaders receive at least eight hours, up to 16 hours, of training prior to the start of the semester. This training can also be accomplished through a semester-long, credit-bearing course that meets one hour per week (Lipsky, 2006). Pre-semester or semester-long training is conducted in a collaborative manner in order to model for SI leaders the collaborative learning environment they will be expected to create in their SI sessions. Because SI leader training is done in a collaborative atmosphere, the ideal size of an SI training program is five to 15 students, again to model the realities of the size of an ideal SI session (Lipsky, 2006; McDaniel, 2008).

SI leaders continue to learn and develop throughout their SI leader experience. However, pre-semester training is comprised of three key components: (a) team-building to foster mentoring relationships between new and experienced SI leaders, (b) developing an understanding of basic pedagogy and the learning process, and (c) learning the tenants of basic session planning similar to that of lesson planning for professional teachers (McDaniel, 2008). The model most appropriate to SI leader session planning is the Hunter (1990) model comprised of setting appropriate session objectives, coordinating interactive and collaborative session

activities, determining key segments of the session to model the material, deciding on methods and strategies for checking students for understanding, and planning specific guided and independent practice opportunities.

Cooperative learning activities are the foundation of the SI model (Hurley & Gilbert, 2008; McDaniel, 2008). Results of a meta-analysis conducted by Johnson and Johnson (2009) of nearly 100 years of research on cooperative learning and social interdependence theory found that students who engaged in cooperative learning performed 66% better than students who engaged in individualistic or competitive types of learning activities. As such, SI leaders are trained extensively in how to effectively plan and facilitate cooperative learning activities that promote social interdependence and avoid individualistic or competitive learning. Common to SI are cooperative learning techniques that prompt students to engage in reciprocal peer teaching, problem-solving activities, small group discussions, and creation of graphic organizers (University of Missouri—Kansas City, 2004).

According to the *Supplemental Instruction Leader Resource Manual,* SI leaders are also expected to possess and develop interpersonal skills necessary to maintain effective relationships with students, faculty, and staff (University of Missouri—Kansas City, 2004). Training in these skills is accomplished through in-depth discussion and role-playing numerous case scenarios SI leaders will likely face during their SI experience. Additionally, SI leaders receive training in data collection methods to track program utilization and practices for being an ambassador for other programs and services offered by the parent academic support department.

SI Sessions

In the basic model of SI, the group study sessions begin during the first week of classes and continue through the semester to final examinations. SI leaders attend all regularly

scheduled classes in order to stay abreast of the progress of the course and to experience exactly what students are experiencing in the course (Hurley & Gilbert, 2008). SI leaders use the time in class to take notes and to formulate ideas and plans for SI sessions. Because SI leaders do not have sufficient time to cover all material addressed in class, they are responsible for determining the most challenging ideas or concepts and tailoring the SI session objectives and activities around them (Hurley & Gilbert, 2008).

Attendance at SI sessions is voluntary and open to all students enrolled in the course to which it is assigned. SI sessions typically take place three times per week, and each session lasts one hour. However, this model varies across programs as some programs provide two sessions per week with each lasting 90 and 120 minutes. Smaller courses may have one SI leader to facilitate all sessions, but larger courses may be assigned two or more SI leaders to facilitate larger SI sessions. Again, this model varies across programs and can be limited based on available financial resources. Special SI sessions are held prior to examinations and serve as additional opportunities for students to practice or rehearse course material before an examination. Although course content is the primary focus of SI sessions, an essential component of SI is to help students develop effective study and learning strategies that can boost student performance in future courses in which academic support programs may not be available (Arendale, 1997; Blanc et al., 1983).

Although the paragraphs above describe details of what SI is and how the program is operationalized, this researcher believes it is equally important for readers to understand what SI and SI leaders are not. SI is not intended to serve as a student alternative to attending regularly-scheduled class meetings; and SI leaders are not teachers, instructors, or graduate teaching assistants responsible for providing instruction, administering assessment, or awarding grades.

The arguments and findings reported in this manuscript are all predicated on regular student attendance in the class to which SI is assigned. Furthermore, as Ashwin (1994) so clearly argued, SI leaders are not teachers because they do not provide students any new information; their goal is to plan and execute learning activities to facilitate student understanding of material covered by instructional staff during lecture. Finally, as Vorster (1999) concluded:

> the nature of the SI task is crucial; students in SI need to be able and willing to participate; and the facilitation style of the SI leader plays a role in determining the quality of the activity in the SI session (p. ii).

Effectiveness of Supplemental Instruction

Numerous studies show that SI programs that conform to the UMKC model significantly improve the academic performance of students enrolled in undergraduate level courses (Anderson, 2014; Bonsangue et al., 2013; Bronstein, 2008; Fayowski & MacMillan, 2008; Grillo & Leist, 2013; Ning & Downing, 2010; Lockie, Van Lanen, & Mc Gannon, 2013; Malm, Bryngfors, & Morner, 2011; Ning & Downing, 2010; Ogden, Thompson, Russell, & Simons, 2003; Oja, 2012; Paideya & Sookrajh, 2010; Parkinson, 2009; Peterfreund et al., 2008; Price, Lumpkin, Seemann, & Bell, 2012; Rath et al., 2012; Terrion & Daoust, 2012). However, studies that claim SI has little or no impact on student performance do so because they fail to adhere to the essential tenants of the UMKC model. For example, Porter (2010) observed the academic performance of two college algebra classes. Students were required to attend SI, but sessions were not peer-facilitated. Although the results of the study concluded there was not a significant difference in performance between SI attendees in the two classes and non-attendees from other algebra classes, this particular study lacked internal and external validity because the form of SI used in the study did not possess the characteristics (peer-facilitated and voluntary) outlined by

the program's creator and the current authorities on SI at the International Center for SI at the UMKC (Stone & Jacobs, 2008).

The literature reveals that SI is equally effective in domestic and international institutions where expected cultural and environmental differences exist. In one of the few studies of SI in Ireland, Parkinson (2009) found that students who participated in Peer Assisted Learning Support (PALS; a form of SI acknowledged by the UMKC International Center for Supplemental Instruction) passed courses in calculus and chemistry at a much higher rate than non-participants. Participant pass rates ranged from 72.2% to 88.9% while the pass rates of non-participants ranged from 37.1% to 57.1%. At the City University of Hong Kong, Ning and Downing (2010) conducted a study of the effectiveness of SI for 430 students enrolled in business courses. Controlling for pre-intervention learning strategy scores on the Learning and Study Strategies Inventory (LASSI) and previous academic achievement, study results showed students who attended SI had significantly larger improvement in academic performance than non-participants.

At Lund University in Sweden, the academic year is divided into the traditional fall and spring semesters; however, each semester is then divided into two quarters. Students typically enroll in two courses per quarter, attending lecture for seven weeks and exams the final week. In this configuration, students can attend up to six SI sessions beginning in week two and ending in week seven. In their study of the effect of SI on eight first-year calculus courses in four engineering programs, Malm et al. (2011) found that students who attended SI performed better than those students who did not attend SI. Their research results showed that overall academic performance increased as student level of participation in program increased. Similarly, in their study of SI in a small Canadian college, Fayowski and MacMillan (2008) found that SI

significantly helped first-year students in a calculus course after controlling for selection bias and gender. Students who attended SI scored two letter-grades higher (on a 12-point scale) than students who did not attend. Furthermore, overall success rates in the course were considerably higher for students who participated in SI compared to those who did not. At the larger University of Ottawa, Terrion and Daoust (2012) conducted a quantitative study using an ex post facto research design with a pre- and post-test to determine if students who participated in their Resident Study Group Program (RSGP), the institution's formal SI program, outperformed and persisted in their studies more than those students who did not participate. Although they found no statistically significant difference in academic performance, participation in RSGP did significantly impact student retention through difficult courses and through their challenging first year of university. This led Terrion and Daoust to conclude:

> Interestingly, in contrast to the findings of numerous other studies cited above, and despite the objectives of the RSGP, participation in this program does not appear to make a difference to the final mark of students in at-risk classes who choose to participate. It may seem, then, that offering the RSGP is not worth the investment if improved academic performance is the goal of the program. On the other hand, if the goal of the program is to ensure that students become academically and socially integrated during their first year of university, and that the sense of belonging that is created through this integration process results in greater retention of these students, then our data show that the program is, in fact, effective (pp. 319-320).

This researcher would argue that, if students who are participating in RSGP are being retained and are persisting at a higher rate than non-participants, there is a positive impact on academic performance even though the results of final course grades may not indicate so.

In the United States, studies have not only shown the effectiveness of SI using quantitative methods, but qualitative methods have been used to present the affective impact SI has on student perceptions. In a study of survey responses from 3,865 midterm and end-of-semester evaluations and 91 open-ended survey responses, Stone et al. (2006) found that 92% of SI attendees perceived SI to be helpful. Among the primary benefits students cited were that SI helped them organize course material and reinforced major concepts; SI provided them an opportunity to clarify questions and identify key course content; SI afforded them the ability to learn in a non-threatening, safe environment; SI sessions offered them opportunities to demonstrate understanding of course material; attending SI sessions exposed them to other interpretations of ideas and concepts; and by participating in SI sessions, they gained a deeper understanding of course material and increased their self-confidence. However, despite the overwhelming percentage of students who viewed their SI experience as positive, the same study revealed that other students perceived frustrations with the SI program. A small percentage of students reported that sessions were unproductive and that SI leaders were not as knowledgeable of course material as they needed to be, that SI leaders provided contradictory and confusing information, and that additional leadership was needed to compensate for the peer-led aspect of SI. Several students cited disappointing test preparation as a source of their frustration, and others readily admitted that they did not fully understand the purpose of SI and therefore had different expectations for SI sessions. Although the vast majority of studies on the effectiveness of SI are quantitative in nature, qualitative studies can provide researchers, educators, and administrators a unique insight into how students perceive their SI experience in both positive and negative terms.

In a quantitative study using a quasi-experimental research design, Oja (2012) utilized a random sample of 2,005 students enrolled in 30 courses over nine disciplines to show that participating in SI improved students' performance in the semester that they attended SI sessions. Similarly, utilizing a 2x7 repeated measure analysis of variance (ANOVA) and *t* tests, Price et al. (2012) found that students who attended Peer-Assisted Study Sessions (PASS; a form of SI recognized by the UMKC International Center for Supplemental Instruction) attained a significantly higher final course grade than did the students who did not attend PASS sessions.

In longitudinal quantitative studies, Peterfreund et al. (2008) and Rath et al. (2012) looked at the effectiveness of SI across several courses in biology, chemistry, mathematics, and physics over a six-year period from 2000 to 2006. Their findings concluded that the pass rates for students who attended SI were significantly higher than those who did not attend in 14 of the 15 courses studied. In the remaining course, the pass rates were statistically equal for attendees and non-attendees. In keeping with the results of the studies conducted in the United States, the studies conducted at international institutions in Hong Kong, Ireland, Sweden, and Canada show that SI is an equally effective academic intervention inside and outside of the traditional American college environment.

Effectiveness of SI on Targeted Population Groups

A common theme in studies on the effectiveness of SI is the sorting of students into groups for the purpose of determining the effectiveness of the program on that particular group. Studies demonstrate that SI is equally effective for underrepresented students and majority students; students with a weak or strong mathematical background; as well as students in traditionally challenging courses in science, technology, engineering, and mathematics (STEM) courses.

Studies by Bronstein (2008), Fayowski and MacMillan (2008), Peterfreund et al. (2008), Parkinson (2009), Malm et al. (2011), and Rath et al. (2012), centered on the effectiveness of the program on students grouped by courses in biology, chemistry, computer science, mathematics, and physics, while only a couple studies address the effectiveness of SI for students in courses in political science, psychology, English, history, accounting, business, and geography (Ning & Downing, 2010; Ogden et al., 2003; Oja, 2012; Price et al., 2012). Peterfreund et al. and Rath et al. analyzed data to determine if SI was more or less beneficial to biology, calculus, chemistry, and statistics students identified as underrepresented. The results revealed there were no statistical differences in the performance of underrepresented students who attend SI and those of majority cultural and ethnic backgrounds. In a study centered on students in a first-year calculus course, Malm et al. looked at the effectiveness of SI on students grouped by prior academic ability as measured by their high school performance in mathematics. The researchers grouped students as *weak*, *average*, or *strong*. Results of the study showed that students with *weak* mathematical ability in high school but high attendance at SI sessions passed the course at nearly the same rate as students with *strong* mathematical ability in high school and who did not participate in SI. Inferential statistical data presented by Congos and Schoeps (1993) indicated similar results for students enrolled at the University of North Carolina at Charlotte between 1987 and 1991 where students with lower predicted academic potential and indicators of industriousness earned higher final grade averages and received fewer lower grades and withdraws than did non-attendees. Even in instances where researchers conducted studies controlling for cultural background, ethnicity, course, or prior academic performance of the study participants, results consistently indicate that SI is an effective academic intervention that improves student performance. Ogden et al. produced similar findings in a study of political

science students classified as *regularly admitted* students and students enrolled in Learning Support Programs and/or English as a Second Language classified as *admitted on a conditional basis*. The researchers found that students who participated in SI performed better and reenrolled at a higher rate than students who did not participate in SI.

Residual Benefits of Supplemental Instruction

In addition to determining the academic impact of SI in particular courses and on specific groups of students, the literature revealed that researchers also seek to determine if the intervention has other benefits to students and institutions or if SI participation can be used as a predictor variable for student behaviors and academic outcomes. Bronstein (2008), Grillo and Leist (2013); Paideya & Sookrajh (2010); Parkinson (2009); Oja (2012); Ogden et al. (2003); Price et al. (2012); and Wiggers, Rheysen, Ammeter, & Ponton (2014) all conducted studies to determine if participation in SI had any impact on student persistence, academic progression, academic engagement, institutional retention, graduation rates, higher order thinking skills (HOTS), and student short-term and long-term retention of course material. Chilvers (2014) looked at the role of PASS in helping international students transition to learning at the University of Brighton in England. Lockie, Van Lanen, and McGannon (2013) sought to determine if SI participation was a predictor of student performance on the National Council Licensure Examination (NCLEX-RN) for registered nurse students. Findings from each of these studies are discussed here.

Bronstein (2008) described courses that interfere with student persistence as barriers to academic success, which students encounter throughout their undergraduate experience. Using a single-case descriptive study, Bronstein explored faculty and student perceptions of SI in an upper-level physical chemistry course that had long been perceived by students to be an

extremely challenging course, in other words, a barrier course. According to Bronstein, the results of the data from focus groups and one-on-one interviews with instructors and students determined that SI improved student persistence to continue in the barrier course because it relieved anxiety about challenging material and provided students a safe environment and peer support in the course, "breaking the cycle of an academic barrier" (p. 43).

Although Bronstein's (2008) findings indicated that SI can improve student persistence (i.e., the level of determination of students to persevere in barrier courses), Parkinson (2009) found that student participation in SI improved student progression (i.e., the rate of students who continue enrollment from term to term at an institution). Parkinson correlated SI attendance with student progression and found that SI participants were retained at 90% compared to 76.1% of non-participants, while only 10% of participants withdrew compared to 23.9% of non-participants. Oja (2012) later conducted a quasi-experimental study that showed that SI attendance was a great predictor for term grade-point-average (GPA), but concluded cumulative GPA "was the primary contributor to explaining continued student attendance at the college (persistence)" (p. 348). This conclusion was supported and expanded by Grillo and Leist (2013) who, through a quantitative study using a correlational design of data from 11,777 unique students over a six-year period, found that increases in the number of hours engaged in academic assistance activities and mean cumulative GPAs increase the likelihood of a student persisting from year to year to graduation.

In a study at the University of Alabama, Price et al. (2012) followed 75 introductory psychology students' participation in the university's PASS program to determine if the program contributed to the short-term and long-term retention of course material. The researchers used performance data from six quizzes to measure short-term retention and a cumulative final

examination to measure long-term retention of course material. On the first quiz, non-PASS attendees actually scored higher than PASS attendees. However, on the five remaining quizzes, PASS attendees scored significantly higher than non-attendees. These results persisted on the final examination. The researchers found that the "study strategies being taught in PASS facilitated short-term retention of information by helping students decode the information for each quiz and also appeared to enhance their long-term retention of the information" (p. 18).

In addition to having an impact on student short-term and long-term retention of information in an introductory psychology course, Paideya and Sookrajh (2010) found that participation in SI can contribute to promoting HOTS among engineering students in a first-year chemistry course. By first defining and establishing HOTS using Bloom's Taxonomy,[4] the researchers conducted observations of SI sessions, reviewed video-recordings of SI sessions, and conducted focus groups with SI participants that revealed that students preferred the more interactive engagement of SI sessions. Additionally, they found that SI leaders encouraged HOTS by asking higher-order questions and engaging in HOTS activities such as problem solving and critical discussion. The researchers concluded that student engagement in SI coupled with constant feedback, practice in problem solving, and developing opportunities for HOTS and deep understanding in terms of scaffolding and evaluating learning, all contribute to developing HOTS and deeper understanding in chemistry.

Essential to developing HOTS, students must first actively engage in the learning process. Wiggers et al. (2014) collected and analyzed data from 396 students enrolled in SI supported courses to determine if (1) there was a relationship between SI participation and student engagement in academic courses, and (2) SI can mediate the relationship between

[4] Bloom's taxonomy is a classification system used to define and distinguish different levels of human cognition that is often used by educators to inform learning and assessment activities. See Krathwohl, D. (2002). A Revision of Bloom's Taxonomy: An Overview. *Theory Into Practice, 41*(4), 212-218.

academic entitlement (AE—the idea that students should be able to receive high grades with minimal personal effort) and final course grades. Students were administered two instruments--the Academic Engagement Survey (AES) and the Academic Entitlement Questionnaire (AEQ). Results of the correlational study indicated that there was a strong correlation between SI participation and level of academic engagement; but as suspected, AE did not correlate with academic engagement and SI participation. However, the researchers did postulate that SI attendance and participation could improve the academic engagement levels of academically entitled students. As concluded by Wiggers et al.:

> It is likely, then, that students who participate in SI can experience a change in their levels of engagement, e.g. students with lower levels of engagement or academically entitled students with little inclination for engagement learn from and adopt engagement behaviors and beliefs modeled by peers (p. 85).

Chilvers (2014) supports the conclusion that SI can contribute to academic engagement, but adds that it can simultaneously provide additional social and academic benefits to international students. Following interviews with internationals students, Chilvers used the lens of Communities of Practice (CoP) theory[5] to look at the role of PASS in helping international students to transition and learn in higher education settings. The study revealed that PASS not only helped the participants do better academically through engagement with learning activities and the development of independent study strategies, but that through the regular social integration provided by the PASS model, international students were aided in integrating with students of other nationalities, developing friendships with other students, and experiencing an increased sense of belonging to a community. Furthermore, PASS provided students the

[5] Community of Practice theory is used to describe a group of people with shared interests and passions who learn to do what they do better through social interaction. See Lave, J. & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation.* Cambridge, UK: Cambridge University Press.

opportunity to develop a shared language, values, and practices with other students in the same discipline.

SI literature shows that SI improves student academic performance; yet, as the previous paragraphs demonstrate, SI also provides other benefits to students and institutions. These include higher rates of academic engagement, retention, and persistence as well as an improvement in short-term and long-term information retention and HOTS. One could argue then that SI could be a good predictor of student behavior and outcomes. However, Lockie et al., (2013) found that SI participation alone is not a good predictor of student performance on the standardized NCLEX-RN for registered nurses. In their quantitative study of 197 undergraduate nursing students enrolled in one section of a Chemistry 108 course over nine semesters, Lockie et al. revealed that "pass–fail grades in Chemistry 108, learning style groups, and race (White vs. Black) were predictor variables of performance on the NCLEX-RN. Gender, transfer status, and SI attendance presented divergent findings regarding NCLEX-RN success" (p. 54). Although this study showed there was no relationship between SI participation and passage of the NCLEX-RN, it does show a growing body of research dedicated to outcomes associated with SI outside of academic performance.

In addition to identifying the academic impact of SI on academic performance and on specific student populations, the literature revealed that researchers are working to determine if SI has additional benefits and uses to students and institutions. Several studies have shown SI to positively impact student persistence, academic progression, institutional retention, HOTS, student short-term and long-term retention of course material, and the social and academic transition of international students; but SI participation has yet to be shown as a reliable and

consistent predictor variable for these student outcomes. However, the literature also shows that SI can provide many potential benefits to students, faculty, and higher education administrators.

Benefits of Supplemental Instruction for SI Leaders

The literature reveals that SI produces benefits for students who attend SI sessions as well as for institutions who have implemented forms of the program. However, despite the numerous studies aimed at showing the effectiveness of SI as an academic intervention, very few quality studies have been undertaken to examine how students who serve as SI leaders benefit from their SI experience. Much of the literature surrounding students serving as peer educators has been centered on students serving in other capacities such as peer counselors (Carns et al., 1993), peer advisors (Frisz, 1984), resident assistants (RA; Winston & Buckner, 1984), and campus activities leaders (Yamauchi, 1986). Although these student engagement activities are similar in nature to SI leaders, and they may even produce similar benefits and outcomes to students as SI, it is evident that more research focused on the SI leader experience is needed.

In a combination of ex post facto and qualitative studies on the impact of SI on medical and law students, researchers at the University College of London (UCL), University of Central Lancaster (UCLN), and Memorial University of Newfoundland found that SI contributed to higher academic performance of students in both fields of study. However, each provided diverse insights into how students who served as SI leaders in these programs benefitted from their experience. At ULC and UCLN, Hurley et al. (2003) analyzed comments from 14 medical students and reported the SI leaders found their experience generally positive and a good review of material. Slightly broader in the scope of their research, Donelan and Kay (1998) found that the law students who served as SI leaders reported improved communication and presentation skills and an increase in their own understanding of course material. Additionally, the students

found they benefitted by getting to know other students, facilitating group activities, helping others learn, and experiencing the learning process from a different perspective. Although these studies used a valid quasi-experimental design to analyze the impact of SI on academic performance of students who attended sessions, the qualitative elements of the studies to describe the SI leader experience lacked the same rigors.

Similarly, at the University of Central Florida, Congos and Mack (2005) gathered anecdotal responses from chemistry SI leaders about their leadership experience. They found that most SI leaders valued the positive academic impact on students who attended their sessions and the adulation they received from students as a result of their academic success. At Kingston Polytechnic, Wallace (1992) observed SI leaders performing better academically as a result of their SI experience including enhanced integration of study skills and the transferability of learning. However, these studies did not utilize a rigorous research methodology to fully describe the SI leader experience at their respective institutions.

In their study of the effectiveness of SI, Stone et al. (2006) used a qualitative approach and methods and reviewed survey responses from 3,865 midterm and end-of-semester evaluations and 91 open-ended survey responses. At the same time, they gathered anecdotal feedback from 18 SI leaders who reported that they benefitted from the SI leader experience by enhanced relationships with students, faculty, and other SI leaders; that they developed a deeper understanding of content and formed better study strategies; and that they developed leadership skills and received exposure to teaching. Similarly, in their synthesis of research on peer educators who provide academic support, Latino and Unite (2012) identified that students who serve as SI leaders benefit from academic skills enhancement, professional development, and experiencing supervisory support for their SI responsibilities. However, similar to Congos and

Mack (2005) these studies did not utilize a rigorous research methodology to fully describe the SI leader experience or the benefits derived by students who serve as SI leaders. Contrastingly, Smuts (2002) and Lockie and Van Lanen (2008) utilized qualitative studies of phenomenological and ethnographic designs to take a more rigorous approach to more fully understanding the SI leader experience.

In a case study conducted at the University of Witwatersrand, Smuts (2002) analyzed data from open-ended questionnaires from seven final-year law students on their experience as SI leaders and found that students who served as SI leaders developed a sense of personal adequacy as well as improved communication, relationship building, citizenship, and workplace skills. Furthermore, they found more meaning and use for previously learned subject matter that, in some cases, helped improve their own grades. Additionally, through the lenses of Role Model and Gestalt theories of peer tutoring, Goodlad and Hirst (1989) showed that the SI leaders reported an increased understanding of, and interest in, learning and the teaching profession and that they engaged in reflective thinking to offer suggestions for improvement of their institution's SI program. These findings were supportive of both Role Model and Gestalt theories that suggest that when one is placed in a role similar to another (in this case the SI leaders serving in a role similar to that of a teacher) the person will come to identify with the role and develop a deeper respect for the role and, therefore, will be able to better relate an idea to the larger context (in this case the role of SI to learning) (Goodlad & Hirst, 1989). Additionally, the SI leaders reported personal growth and an increase in their confidence and sense of self-fulfillment.

In a more thorough phenomenological study of 29 SI leaders at Saint Xavier University, Lockie and Van Lanen (2008) found that students who served as SI leaders realized advantages associated with their experience including:

> (a) greater appreciation for the diversity of student learning styles, (b) increased understanding of course material, (c) greater self-consciousness as a learner, (d) development of closer relationships with faculty, (e) application of the strategies and skills learned as an SI leader in other courses, and (f) realization of the importance and value of collaborative learning. (p. 2)

Stout and McDaniel (2006) supported the findings of Smuts (2002) and Lockie and Van Lanen (2008) and added that students who serve as SI leaders report improved communication and relationship building skills and enhanced personal and professional development. Mason-Innes (2015) confirmed similar findings in her case study of six SI leaders that revealed that students who served as SI leaders experienced increased self-awareness, increased skill development, increased awareness of leadership, self-confidence, and clarification of career goals. Stout and McDaniel and Stone et al. (2006) suggested that opportunities for further research exist on the benefits for SI leaders and the professional and academic paths pursued by leaders and how the SI leader experience affected their aspirations. Similarly, Mason-Innes proposed that additional research on the SI leader experience could afford more insight into how students who serve in this role develop as leaders.

One of the most significant studies on the learning outcomes of peer educators is the National Peer Educator Survey (NPES; Wawrzynski et al., 2011). First administered in 2005, the NPES has been administered to over 1,700 peer educators at over 200 institutions. The survey is intended to measure seven key learning outcomes the instrument developers believe

students should attain through student affairs-derived experiences: (a) cognitive complexity; (b) knowledge acquisition, integration, and application; (c) humanitarianism; (d) civic engagement; (e) interpersonal and intrapersonal competence; (f) practical competence; and (g) persistence and academic achievement (Wawrzynski et al., 2011). Although the NPES is a valuable instrument to measure student attainment of specified, pre-determined outcomes, it does not capture the specific experiences of students who serve as SI leaders. Currently, the data captured by the NPES is primarily related to peer educators of issues pertaining to drug use and sexuality. Despite the call for further studies on the learning outcomes of being a peer educator, few have addressed this call.

Summary

The recurring themes found in the literature are that SI is an effective intervention that positively impacts the academic performance of students and produces benefits for students who serve as SI leaders. The effectiveness of SI is not dependent on race or ethnicity, academic discipline, or levels of academic ability prior to entering college. Additionally, SI is utilized internationally and has shown to be an effective intervention in settings where cultural and environmental differences exist. Although numerous studies demonstrate the effectiveness of SI as an intervention to improve academic performance, retention, and persistence for students who attend and participate in SI sessions, only a few works (Congos & Mack, 2005; Donelan & Kay, 1998; Hurley et al., 2003; Lockie & Van Lanen, 2008; Mason-Innes, 2015; Smuts 2002; Stone et al., 2006; Stout & McDaniel, 2006; Wawrzynski et al., 2011) have explored the experience of students who are largely responsible for executing the study sessions—the SI leaders. This gap in the literature on SI left me with four questions that I attempted to address in this study: (a) How do the students who serve as SI leaders experience the SI program? (b) What intended and

unintended outcomes does the SI program produce for SI leaders? (c) How do SI leaders transition from their role as a student to a role as a peer educator? (d) What do students who served as SI leaders perceive the value of their experience to be beyond their tenure as an SI leader? Addressing these questions can contribute to a more complete picture of the impact of SI on students who serve as SI leaders and the overall SI leader experience.

CHAPTER THREE: METHODS

Overview

The purpose of this transcendental phenomenological study was to describe the experiences of undergraduate students who serve as SI leaders at a mid-sized, private research university in the Midwestern United States. Chapter Three of this study provides a comprehensive description of the research design, the participant selection process, and the research site. Additionally, the research procedures, including detailed descriptions of the data collection and analysis methods, are addressed and I describe the steps taken to insure trustworthiness. This chapter concludes with a discussion of the ethical considerations of this study.

Design

This qualitative study utilized the transcendental phenomenological research method to describe students' experiences in their roles as SI leaders. As this study focused on the perspectives of SI leaders and the meaning of their experiences, a qualitative research approach was appropriate for this work (Creswell, 2013; Patton, 2002). The outcome of this research is a holistic description of the essence of the SI leader experience derived from the textual and structural descriptions produced in the data analysis which is best achieved utilizing a phenomenological research design (Moustakas, 1994). However, because the study focused on describing the SI leader experience, "in which everything is perceived freshly, as if for the first time" (Moustakas, 1994, p. 34), it was necessary to employ "Epoche," or to set aside or bracket, my prejudgments about the SI leader experience. This bracketing was accomplished by keeping a reflexive journal throughout each stage of the study to record decisions related to methodology and logistics, and my own personal reflections on the phenomenon in order to "describe things in

themselves, to permit what is before one to enter consciousness and be understood in its meanings and essences" (Moustakas, 1994, p. 27), which is the descriptive nature of the transcendental phenomenological research design.

Research Questions

The following research questions guided this transcendental phenomenological study:

Central Research Question

How do students who serve as peer educators at a mid-sized, private research university located in the Midwestern United States describe their experience as SI leaders?

Guiding Question One

What were participants' expectations for being an SI leader prior to the experience?

Guiding Question Two

In what ways were participant expectations met or not met during the SI leader experience?

Guiding Question Three

What expected and unexpected outcomes did participants experience during the SI leader experience?

Guiding Question Four

How do participants describe the short-lived and enduring influences of their SI leader experience?

Setting

The site for this study was a mid-sized, private research university situated in an urban setting in the Midwestern United States. Student enrollment is approximately 10,500 and is 60% graduate and professional students and 40% undergraduate students. The majority of students major in engineering or the natural sciences and a significant portion initially enroll in pre-

medical/dental professional programs. The student body is comprised of students from all 50 states of the United States and 93 countries.

The SI program has been in place at the study site since the mid-1980s and originally targeted large, traditionally challenging first and second-year courses in chemistry, biology, engineering, and physics, and select upper-level courses in chemistry and physics in which first- and second-year students may be enrolled. The academic support department that houses the SI program is located within the study site's division of student affairs, but has close relationships with the study site's academic departments.

On average, 75% of undergraduate students enroll in one or more SI-supported courses during their undergraduate experience with approximately 1,800 students participating annually. The SI program currently supports courses in biochemistry, biology, chemistry, cognitive science, engineering, nursing, and physics. SI session attendance can range between one student and 200 students, although the mean attendance ranges from 20 to 30 students.

Each semester the program employs between 22 and 32 students as SI leaders responsible for facilitating the SI sessions. SI leaders are expected to dedicate eight to 10 hours each week to their SI leader responsibilities. This includes three hours per week attending the course for which they are serving as an SI leader, three hours facilitating SI sessions (most SI leaders at the research site hold two 90-minute SI sessions each week), and two to four hours for meetings with their SI course faculty and program supervisor and planning and preparing for their SI sessions. Although the UMKC model outlined in Hurley and Gilbert (2008) does not specify the time commitment for students who serve as SI leader or the duration or number of SI sessions that should be held each week, the SI model in place at the study site conforms fully to the UMKC model in that (1) SI is applied to targeted courses and supported by the respective faculty

members, (2) the program employs students to serve as SI leaders supervised by an SI supervisor in the targeted courses, (3) SI leaders receive training prior to the start of the semester, (4) SI sessions run throughout the entire semester, and (5) SI leaders utilize effective learning strategies to facilitate SI sessions including collaborative learning and critical thinking techniques. As a result, the students who serve as SI leaders at this site have the potential of impacting the academic performance of a significant number of their peers during their SI leader experience making this an ideal site for this study.

Co-Researchers

Because I had a personal interest in the SI leader experience and I worked intimately with the students who actually experienced the SI leader phenomenon, I chose to refer to my study participants as co-researchers. As such, each SI leader experienced the SI leader role differently and, therefore acted as a co-researcher by contributing unique realities based on individual SI leader experiences.

The sampling types used for this study included a combination of purposeful criterion, purposeful intensity, and maximum variation as I included only students who served as SI leaders for a minimum of two semesters (Creswell, 2013; Patton, 2002). However, I strived to include co-researchers with more extensive and intense SI leader experience (Patton, 2002). Additionally, transferability was increased using maximum variation sampling to document unique variations that emerge based on variables including co-researcher gender, age, ethnicity, or college major (Lincoln & Guba, 1985). Co-researcher demographic and experiential information can be found in Tables 1, 2, and 3. Although Moustakas (1994), Van Manen (1990, 2014), and Patton (2002) did not specify a requisite quantity of participants (or co-researchers in the case of Moustakas) for a phenomenological study, Polkinghorne (1989) postulated that it is

appropriate to collect data from five to 25 individuals who experienced the phenomenon. However, the goal of sampling in a qualitative study is not to achieve an accurate representation of a larger group but to select participants who can provide substantial contributions to achieve a thematic saturation of the phenomena to the point that no new themes emerge from the data (Moustakas, 1994; Polkinghorne, 2005). Therefore, this study utilized data from 12 co-researchers who served as SI leaders to achieve thematic saturation (Moustakas, 1994; Polkinghorne, 2005) in order to provide a thick, rich description of the SI leader experience.

The process to identify potential co-researchers began once Institutional Review Board (IRB) approval was secured (see Appendices A and B). However, as the person responsible for the SI program at the study site, I already had access to the necessary archival records of students who have served as SI leaders in the institution. Nevertheless, efforts to identify and secure co-researchers did not begin until appropriate IRB approval was received. At that time, I compiled a list of students who served as SI leaders for a minimum of two semesters and their contact information. I then identified students who had a thorough and in-depth experience as an SI leader and invited them to participate in the study.

A combination of criterion and intensity sampling allowed me to select co-researchers who met my delimiting criteria of having served at least two semesters as an SI leader but who also had more extensive and intense SI leader experiences (Patton, 2002). Co-researchers who met the minimum criteria had adequate exposure to the phenomenon to describe it, but those who have served as an SI leader for more than two semesters had more robust and richer experiences. This allowed me to select a fewer number of co-researchers who provided a depth of knowledge regarding the phenomenon under study.

As illustrated in Table 1, co-researchers were comprised of eight males and four females of Asian or Caucasian descent. Six of the co-researchers were graduate or professional students at the time of this study while four were in the final year of their undergraduate experience. The remaining two co-researchers were employed in positions in the medical and engineering fields at the time of this study. Additionally, the median amount of SI leader experience of co-researchers was 5.5 semesters with a range of two to 10 semesters (see Table 2). All of the co-researchers were SI leaders in science or engineering courses and each confirmed that they had attended formal SI leader training and that they agreed with the statement that they were able to recall, reflect, and discuss details from SI leader experience (see Table 3). Pseudonyms were used in this study to protect the identity of co-researchers.

Table 1

Co-Researcher Demographic Information

Co-Researcher	Gender	Age (as SI/at time of study)	Ethnicity/Nationality	Current Occupation/Status
Timothy	Male	19-22/26	Caucasian	Professional/PhD student
Whitney	Female	20-21/21	Caucasian	Undergraduate student
Liam	Male	18-21/21	Asian	Professional student
Haley	Female	19-21/22	Caucasian	Medical Scribe
Matthew	Male	18-21/22	Caucasian	Undergraduate student
Lucy	Female	19-22/26	Caucasian	Sales Engineer
Ketan	Male	19-21/21	Asian	Undergraduate student
Lucas	Male	19-23/24	Caucasian	Graduate student
Wendy	Female	18-21/21	Caucasian	Undergraduate student
Kaiser	Male	18-21/24	Asian	Professional student
Heath	Male	18-22/23	Caucasian	Professional student
Peter	Male	20-22/23	Caucasian	Graduate student

* Names listed are pseudonyms.

Table 2

Co-Researcher Experiential Information

Co-Researcher	Major	SI Discipline(s)	SI Experience
Timothy	Biomedical Engineering/Pre-Med	Biology, Chemistry, Engineering, Physics	9 semesters
Whitney	Nursing	Biology	3 semesters
Liam	Nutritional Biochemistry and Metabolism	Chemistry	5 semesters
Haley	Physics	Physics	6 semesters
Matthew	Chemistry/Pre-Med	Chemistry, Engineering, Physics	4 semesters
Lucy	Mechanical Engineering	Physics	6 semesters
Ketan	Biomedical Engineering	Physics	2 semesters
Lucas	Mechanical and Aerospace Engineering	Physics	10 semesters
Wendy	Biomedical Engineering	Engineering	5 semesters
Kaiser	Chemistry/Pre-Med	Chemistry/Physics	6 semesters
Heath	Biochemistry	Chemistry	7 semesters
Peter	Biology, Music, Bioethics, and Clinical Ethics Mediation	Biology	4 semesters

* Names listed are pseudonyms.

Table 3

Co-Researcher SI Training Format and Recall Confidence

Co-Researcher	SI Leader Training Format	Able to recall, reflect, and discuss details from SI leader experience?
Timothy	Regularly scheduled follow-on training	Strongly agree
Whitney	Credit-bearing course	Agree

Liam	Credit-bearing course	Agree
Haley	Credit-bearing course	Strongly agree
Matthew	Credit-bearing course	Strongly agree
Lucy	Regularly scheduled follow-on training	Strongly agree
Ketan	Credit-bearing course	Agree
Lucas	Regularly scheduled follow-on training	Strongly agree
Wendy	Credit-bearing course	Agree
Kaiser	Regularly scheduled follow-on training	Agree
Heath	Credit-bearing course	Strongly agree
Peter	Regularly scheduled follow-on training	Agree

* Names listed are pseudonyms.

Procedures

This study was conducted only after receiving approval from the institutional review boards (IRB) of the study site and research institution (see Appendices A and B). However, once started, the study progressed in a systematic process that was in keeping with the study methodology. Utilizing a combination of criterion and intensity sampling to identify potential co-researchers, I narrowed the list of candidates to those who had extensive and intense SI leader experiences (Patton, 2002) and who fit the delimitations set for the study. Once identified, potential co-researchers were sent an invitation to participate, outlining the purpose and processes of the research study (see Appendix C). Those electing to participate in the study were asked to complete a questionnaire to capture demographic information and information related to their SI experience and their ability to recall details and accounts of their experience. Those selected to participate were contacted and asked to sign an informed consent form (see Appendix E) informing them of the known risks and expected benefits of the study, their right to

voluntarily withdraw their data at any time, the steps taken to protect their identity, the data collection and analysis activities in which they would be expected to participate, and my intent to provide them feedback upon completion of this research study (Creswell, 2013). Because the archival records used for this study were considered official student records by the study site, co-researchers were also asked to complete and sign a consent for release of educational records (see Appendix F).

Data was collected using questionnaires, archival records, and open-ended interviews and focus groups that were conducted in-person or through the online communication platform Skype. Collected data was recorded electronically and stored on my password-protected personal computer. All data was regularly backed up using an online backup service (Creswell, 2013). Data collection continued until thematic saturation was achieved (Moustakas, 1994; Polkinghorne, 2005).

The Researcher's Role

As the primary instrument for data collection, or the human instrument (Lincoln & Guba, 1985), it was essential for me to employ the "Epoche" process (Moustakas, 1994) of setting aside or bracketing my personal experiences and assumptions about the SI leader experience in order to allow a description of the lived experiences of the co-researchers of this study to be produced. At the time of this study, I was employed as an associate director of the academic support department in which the SI program was housed at the study site where I had supervisory responsibility for the program, including the hiring, training, and mentoring of students who serve as SI leaders. Additionally, when circumstances necessitated the removal of a student from their SI leader position, I was responsible for initiating and completing the termination process. However, the co-researchers of this study were individuals whom I had supervised during their

SI leader experience, but who were no longer employed nor had any affiliation with either myself or the academic support department in which the program existed that could be construed as a conflict of interest. Some co-researchers had graduated from the study site at the time of data collection, but others were still students at the undergraduate or graduate level at the institution.

Additionally, I earned my undergraduate degree in history and received teacher licensure for grades 6-12 Social Studies before completing a Master's degree and an Educational Specialist degree in Educational Leadership. Although I have experience as a grades 6-12 teacher and adjunct instructor, I did not have experience as an SI leader at the undergraduate level and did not assume any similarities between my experiences and those of the co-researchers of this study.

Furthermore, because I conducted this study at a site with which I am very familiar, it was important that I recognize and address the potential influences of researcher bias (Hanson, 1994). Ashworth, Giorgi, and De Kooning (1986) argued that researchers who are familiar with the study site lack the distance and separation needed to see various points of view concerning that which is being studied. However, they also acknowledged that a researcher who is familiar with the study site is in a position to do insightful qualitative work. Although the pitfalls of role confusion or lack of objectivity were legitimate concerns to the qualitative researcher, I am convinced that familiarity with the study site was equally helpful in that it allowed me to take full advantage of the knowledge of the cultural norms of the site and recognize the vested interest I had in addressing this research topic (Hanson, 1994).

Data Collection

This qualitative study utilized a transcendental phenomenological research design to describe the SI leader experience of undergraduate students at a private research university in an urban setting in the Midwestern United States. Data collection for this study began once IRB approval was received from the study site and research institution (see Appendices A and B). As the human instrument (Lincoln & Guba, 1985), I then collected data on the SI leader experiences of my co-researchers using questionnaires, interviews, archival records, and focus groups that were triangulated to form themes and add credibility and trustworthiness to the study (Creswell, 2013; Patton, 2002). Two current SI leaders who did not meet the criteria for participation because they were still engaged in the experience were solicited to pilot the questionnaire and the interview questions.

Questionnaires

A questionnaire (see Appendix G) was used to capture demographic information about co-researchers including age, race, gender, current employment status/field, and graduation year, and to confirm the duration of their SI leader experience and their participation in a structured SI leader training. Additionally, the questionnaire asked co-researchers to indicate the extent to which they believed they could recall and discuss specific emotions, feelings, details, and events associated with their experience. Finally, the questionnaire requested co-researchers to reflect on their SI leader experience and to share their most memorable and meaningful moments from it.

Using responses from the questionnaire, I was able to select co-researchers based on the extent and the perceived significance of their SI leader experience. The more significant potential co-researchers perceived their SI leader experience to be, positively or negatively, the richer and more robust their experience was likely to be. Once selected co-researchers

confirmed their interest in participating in this study, I arranged to meet either face-to-face or through Skype with each co-researcher to review the details of the study and to confirm their agreement to participate. Those who ultimately agreed to participate were forwarded an informed consent form (see Appendix E) and a consent for release of educational records form (see Appendix F), and a time was scheduled to conduct an individual interview.

Interviews

Patton (2002) asserted that the purpose of interviewing "is to allow us to enter into the other person's perspective" (p. 341). Using semi-structured interview questions in open-ended interviews, I was able to enter into the experience of the co-researchers and obtain their perspectives about their SI leader experience. These questions were peer-reviewed for clarity by a higher education colleague with experience in qualitative research and knowledge of student development theory. And, like the items contained on the questionnaire, these questions were piloted with two current SI leaders who did not meet the criteria for participation as co-researchers in this study.

Semi-structured interview questions were divided into four categories (see Table 4). Opening questions were intended to capture background information about co-researchers including information about their high school experience and college selection process. Questions related to their SI experience before becoming an SI leader provided co-researchers an opportunity to share their pre-SI leader experiences with SI and their motivations for becoming an SI leader. Questions covering the period of time in which co-researchers actually served as an SI leader captured information related to the expectations each had going into the experience and the realities each faced during their experience. Finally, the questions related to the post SI

leader experience were intended to reveal how co-researchers perceived the experience beyond their tenure as SI leaders.

Table 4

Open-Ended Interview Questions

Questions
Opening Questions
1. Please tell me a little about yourself – where you grew up, your family, and your pursuits since completing your undergraduate experience.
2. Tell me about your high school experience. Academics, extracurricular activities, memorable moments in school.
3. During your college search, what were you looking for in a college experience?
4. Why did you choose to attend your particular institution?
5. What excited you or concerned you about attending college?
6. How would you summarize your college experience?
7. What was your immediate thought or feeling when you were invited to participate in this study?
Questions Related to Pre-SI Leader Experiences
8. Please describe your SI experience prior to applying for a position as an SI leader. What was your initial attitude about the program in general?
9. What were your thoughts about your SI leaders? How did you see them and their roles as SI leaders?

10. Describe the circumstance surrounding your decision to apply for a position as an SI leader. Were the influences positive? Negative?

    a. (i. a.) What were your initial thoughts or feelings when you were approached or encouraged to apply to be an SI leader?

11. Please describe how you imagined yourself as an SI leader. What expectations did you have for the experience? What qualities or skills did you feel you had to be successful in the role?

Questions Related to SI Leader Experience

12. Please describe how you felt when you were offered a position as an SI leader.
    a. Did you have any immediate concerns or fears about serving in this position? If so, how did you overcome or address these concerns or fears?
13. Did you experience any challenges during your SI leader experience? If so, describe them.
14. What helped you succeed in your position as an SI leader? (Or to what do you attribute your lack of success as an SI leader if you believe you were not successful in the position?)
15. How do you feel OTHERS benefitted (or did not benefit) from your time as an SI leader? Faculty? Staff? Students? Other SI leaders? Friends?
16. How do you feel YOU benefitted from your time as an SI leader working with faculty, staff, students, and other SI leaders?

Questions Related to Post SI Leader Experience

17. Please describe how you view your SI leader experience. Was it positive? In what ways? Was it negative? In what ways?

18. What skills, if any, do you feel you developed or enhanced as a result of your SI leader experience? How do these skills influence you in your current situation, if at all?
19. Would you recommend other students to pursue a position as an SI leader? Why?
    a. What advice or suggestions would you give to students considering an SI leader position?
20. What was your most memorable moment as an SI leader?
21. Is there anything else related to your SI experience that you would like to add that we have not already discussed?
22. If needed, would it be okay if we did a follow up or clarifying interview in-person, or via e-mail or telephone?

Transition theory attempts to explain the idea that college students can experience three types of transitions: anticipated, unanticipated, and nonevents (Chickering & Schlossberg, 2001; Schlossberg, 2011; Schlossberg et al., 1989). Anticipated events are those events students expect to take place such as moving from high school to college. Unanticipated events are those that students do not expect to take place such as a debilitating injury or becoming a parent. Nonevents are those events that students expect to happen, but do not such as gaining admission to a club, or being selected for an academic opportunity or campus position. Chickering and Schlossberg contend that students experience these events or nonevents through a process of "moving in, moving through, and moving out," which can require a coping process they refer to as the "4 S's"—situation, self, support, and strategies. Therefore, the interview questions used in this study were created and organized in a way to thoroughly capture the phenomenon of the SI leader experience, but also to allow me to view the SI leader experience through the lens of

transition theory. Questions eight through 11 related to the pre-SI leader experience were to gather information about the co-researchers' situations at the time they decided to apply for a position as an SI leader. Questions 12 through 16 related to the time when co-researchers were serving as SI leaders were intended to collect details describing the realities of the SI leader experience and to identify the support available during the time they served as SI leaders. Questions 17 through 21 related to the post-SI leader experience were intended to capture a general picture of how the co-researchers perceive and value their SI leader experience.

Archival Records

As one of the primary sources of data for information related to the co-researchers' SI leader experience, archival data from SI leader documents completed during the SI leader experience was obtained from departmental files at the study site. Information from these records was used to add to, amplify, or corroborate co-researcher questionnaire and interview responses.

Archival records used in this study included each co-researcher's initial application for an SI leader position (see Appendix J) and formative (see Appendix K) and summative (see Appendix L) assessments completed during the SI leader experience. Data from applications included motivations for pursuing an SI leader position and the qualifications co-researchers felt they possessed at the time of application that made them good candidates for an SI leader position. Formative assessments co-researchers completed twice during each semester of their experience included feedback about program supervisor and course professor support, relationships with students and co-SI leaders, and an assessment of their success at that point in their experience. Summative assessments they completed at the conclusion of each semester provided reflections on the SI leader experience including most and least rewarding aspects of

the experience, how the experience contributed to the overall university experience, how leaders hoped to develop further in the position in future semesters if they were continuing in the position, and what suggestions they would provide future SI leaders. Because these records were created electronically, I was able to import them into the qualitative data analysis program NVivo for organization and analysis.

Focus Groups

Patton (2002) suggested that data collected using focus groups can provide checks and balances among co-researchers and weed out false or extreme perspectives (p. 386). This study employed focus groups (see Table 5) to capture information related to co-researchers' SI leader experience that were missed or not communicated during individual interviews. Additionally, the focus groups served as a means of member-checking descriptions and data derived from interviews and archival records that helped to increase study credibility (Lincoln & Guba, 1985). Because focus groups can have limitations including limited response times to allow input from all co-researchers and the complex dynamics that can exist when attendees have prior relationships with one another (Patton, 2002, pp. 386-387), focus groups were organized into groups of less than eight co-researchers and efforts were made to minimize familiar relationships (Patton, 2002).

Focus groups were conducted once individual interviews were completed and the transcripts of the interviews were member-checked and analyzed in order to form appropriate follow-up and cross-checking questions. Focus groups were conducted in person for co-researchers in the immediate vicinity of the study site, and online via Skype for co-researchers outside the immediate study site.

Table 5

Open-Ended Focus Group Questions

Questions

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1. What were the factors or your primary motivations for becoming an SI leader?
2. What were the challenging aspects of your SI leader experience?
3. What do you consider to be the most rewarding aspects of your SI leader experience?
4. How has what you learned through your SI leader experience influenced you as a student or in your current work/life situation?
5. Based on your SI experience, what advice or suggestions would you give a student about SI? (These suggestions can be aimed at students who attend or do not attend SI, or students who desire to become SI leaders. Suggestions can also be specific to pre or post SI experience or during SI experience.)

Data Analysis

Data collected was analyzed using a phenomenological model process outlined by Moustakas (1994). This process begins with what Moustakas called Epoche and moves into phenomenological reduction of data using horizontalizing, clustering horizons into themes, and clustering horizons and themes into textural descriptions. From the textural descriptions, the process continues to imaginative variations whereby descriptions are analyzed for varying possible meanings and structural qualities. The structural qualities are then developed into structural themes, which are combined to create a composite description. The process concludes with a synthesis of composite textural and composite structural descriptions to form the meaning and essence of the SI leader experience.

Moustakas (1994) advised that a disciplined transcendental phenomenologist begin the data analysis process taking "systematic efforts to set aside prejudgments regarding the phenomenon being investigated" (p. 22). As a researcher, I made every effort to remain "completely open, receptive, and naïve in listening to and hearing" co-researchers as they described their SI leader experience (p. 22).

I began the Epoche process by describing my current position and association with the SI Program in the *Role of the Researcher* section of this manuscript. However, I continued in this effort to avoid interjecting my own understanding and interpretations, and at the same time to increase the trustworthiness of the study, by maintaining a reflexive journal (see Appendix O) throughout the data collection and analysis processes (Ahern, 1999). The reflexive journaling process is described in more detail in the *Trustworthiness* section of this manuscript.

Moustakas (1994) defined the purpose of phenomenological reduction as describing the textural language of the data that has been collected, not only externally, but internally. Phenomenological reduction is comprised of horizontalizing, clustering the horizons into themes, and organizing the horizons and themes into a coherent textural description of the phenomenon (p. 97). The process of horizontalizing is identifying significant statements and treating each as having equal value. This process was completed in phases based on data collection method and the availability of data. Once IRB approval was secured and co-researchers were identified, consents for release for educational records were signed by each co-researcher allowing me to access their initial applications and the assessments they completed during their SI leader experience. These archival records were copied into the qualitative data analysis software NVivo for analysis (see Appendix P). As I reviewed these records, I treated each statement, or horizon, made by each co-researcher as equal until I was able to organize the horizons into

categories. Statements unrelated to the research topic and research questions were removed leaving only the statements that related to the research topic and the research questions that were then formed into themes, or clusters (Moustakas, 1994).

Once unrelated statements were removed from the horizons, only horizons related to the topic of this study and its research questions remained. These horizons were then analyzed and formed into themes (Moustakas, 1994). However, during this process, I remained open and vigilant to unexpected themes that might emerge throughout the data analysis process.

Once the horizons were grouped into themes, the horizons and related themes were clustered to form a textural description, or the *what*, of the SI leader experience (Creswell, 2013; Moustakas, 1994). Moustakas described these textures as descriptions of the characteristics that comprise the phenomenon in terms of "varying intensities; ranges of shapes, sizes, and spatial qualities; time references; and colors all within an experiential context" (pp. 91-92).

Moustakas (1994) defined the purpose of imaginative variation as seeking possible meanings for the phenomenon by using imagination, various frames of reference, and approaching the phenomenon from different perspectives with the goal of reaching structural descriptions of the phenomenon—the "how" of the "what" of experience (p. 98). Imaginative variation is comprised of varying possible meanings, constructing a list of structural qualities, developing structural themes, and forming a composite structural description of the phenomenon (pp. 180-181). During the data analysis process, I identified various possible structural descriptions that underlined the textural descriptions (p. 99). Although SI leaders experienced the same phenomenon, they each experienced it in their own unique way and derived their own meaning of the experience. Therefore, it was essential that I remained attentive and open to the

various possible meanings of statements, or horizons, made by each co-researcher as they related to their SI leader experience.

From the possible meanings that underlie the textural descriptions, I will seek to discover structural qualities of the experience (Moustakas, 1994, p. 181). These are the factors, circumstances, motivations, and catalysts that contributed to the phenomenon to take place. They are essentially the "how" attributes that brought about the phenomenon experienced by the co-researchers, being an SI leader (Moustakas, 1994; Creswell, 2013).

The structural qualities of the SI leader experience were then shaped into structural themes. Moustakas (1994) describes these structures as those related to "time, space, materiality, causality, and relationships to self and to others" (p. 99). From the structural themes a composite structural description was formed of the experience. Moustakas describes a composite structural description as a synthesis of all structural descriptions into a group or universal structural description of the lived experience (p. 181).

At this point in the study, I "intuitive-reflectively" (Moustakas, 1994, p. 181) integrated the textural and structural descriptions to synthesize the meaning and essence of the SI leader experience. Although the essence of any experience cannot ever be completely realized, this synthesis of the textural and structural descriptions using phenomenological reduction and imaginative variation represents the essence of the SI leader experience at a mid-sized private research university in the Midwestern United States at one point in time through the perspective of this researcher (Moustakas, 1994).

Trustworthiness

Lincoln and Guba (1985) insisted that the qualitative researcher must take care to arrange for the trustworthiness of a study. This includes taking steps to establish credibility,

dependability, transferability, and confirmability. Credibility is the steps taken to insure that sufficient methods are used to adequately support or refute interpretations or conclusions of a study (Creswell, 2013; Lincoln & Guba, 1985). Dependability speaks to the reliability of the methods and internal processes used to conduct the study. Transferability is the ability of the study to be conducted in a similar setting reaching similar conclusions (Creswell, 2013). Confirmability is the degree to which the results of the study can be confirmed (Creswell 2013l Lincoln & Guba, 1985).

Credibility

Throughout this study, credibility was increased by a prolonged engagement in the field and triangulation of data. A prolonged engagement in the field built trust with the co-researchers and allowed me to better understand the co-researchers personally and filter out misinformation I might bring to the study (Creswell, 2013, p. 251; Lincoln & Guba, 1985). According to Lincoln and Guba, the period of this prolonged engagement would minimally be "long enough to be able to survive without challenge while existing in that culture" (p. 302). I have existed in this culture for several years and had between one and four hours of engagement with each co-researcher. The filtering out of misinformation described by Creswell (2013) aided greatly in making decisions about information that was more relevant to the purposes of the study. Additionally, credibility was established through triangulation of data using multiple data sources including a questionnaire, semi-structured interviews, archival records, and focus groups (Lincoln & Guba, 1985).

Dependability

Lincoln and Guba (1985) described the dependability of a study as a measure of quality of the study *process* and its confirmability as a measure of quality of the study *product*, in other

words, the quality of the "data, findings, interpretations, and recommendations" (p. 318). In this study, dependability and confirmability were addressed through rich, thick descriptions of themes, member-checks of the findings and interpretations, a reflexive journaling done by the researcher, and an inquiry audit (see Appendix N) of the research processes used throughout the study. The audit was conducted by a higher education colleague familiar with qualitative research methodology who possesses experience working with college students and has an understanding of student development theory.

Transferability

Rich, thick description of the site and co-researchers allowed "readers to make decisions about transferability" (Creswell, 2013, p. 252; Lincoln & Guba, 1985). However, transferability may be reduced based on the organizational structure of the SI program, the training process used to prepare students to serve as SI leaders, and the on-going mentoring of leaders in another context. Although external validity cannot be satisfied in qualitative research, Lincoln and Guba concluded that:

> The naturalist [qualitative researcher] can only set out working hypotheses together with a description of the time and context in which they were found to hold. Whether they hold in some other context, or even in the same context at some other time, is an empirical issue, the resolution of which depends upon the degree of similarity between sending and receiving (or earlier and later) contexts. (p. 316)

Therefore, this study has a maximum transferability only to institutions with similar SI programs based on the UMKC model outlined by Hurley and Gilbert (2008). However, in my attempts to achieve maximum variation in the study sample, I also increased transferability by selecting co-researchers comprised of various college majors, genders, ethnicities, and ages.

Confirmability

Confirmability is the degree to which the results of the study can be confirmed (Creswell 2013l Lincoln & Guba, 1985). In this study, confirmability were addressed through rich, thick descriptions of co-researchers, the study site, and the study results, member-checks of the findings and interpretations, and an inquiry audit (see Appendix N) of the research processes used throughout the study. The audit was conducted by a higher education colleague familiar with qualitative research methodology who possesses experience working with college students and has an understanding of student development theory.

Additionally, a bracketing technique used to increase confirmability, as well as credibility, dependability, and transferability, is reflexive journaling whereby information related to *self* and *method* is recorded on a regular basis throughout the study (Ahern, 1999; Lincoln & Guba, 1985). I used reflexive journaling to record on a regular basis information related to *self* and *method* (Ahern, 1999; Lincoln & Guba, 1985). Appendix O contains an example of this reflexive journal. Completely setting aside my perceptions of the SI leader experience was extremely difficult and nearly impossible. During my years of experience working with the SI program and with the students who have served as SI leaders, I was keenly aware that I had developed pre-conceptions and assumptions about the program and the students who served as SI leaders. Although I have experience as a grades 6-12 teacher and adjunct instructor, I do not have experience as an SI leader at the undergraduate level, so I refrained from assuming any similarities between my experiences and those of the co-researchers.

Finally, by keeping a reflexive journal, I was able to bracket my pre-suppositions, thoughts, and feelings about the SI program and SI leader experience to focus only on the research topic and the related research questions (Ahern, 1999; Moustakas, 1994). Through this

bracketing technique, I was able to address issues including my personal interests in conducting the study; my personal value systems that might impact areas of the study that are subjective in nature; and my thoughts during co-researcher selection, data collection, data analysis, and results reporting phases of the study (Ahern, 1999).

Ethical Considerations

Several ethical considerations were addressed during the course of this research study beginning with securing IRB approval from the research institution and the study site prior to engaging in any data collection activities. Once IRB approval was secured, informed consent and consent for release of educational records forms were completed by all co-researchers, and data collection began, steps were taken to protect the identities of all co-researchers and the information they provided. This was accomplished by assigning each co-researcher a pseudonym consistent with their ethnicity and gender and by treating all responses to data collection methods as confidential. Additionally, all electronic data collected for this study is password-protected on no more than two computers and all hard copy data is being maintained in a locked storage container for a period of three years following the completion of the research project. Finally, to avoid a conflict of interest, only persons no longer under my direct or indirect supervision were included as co-researchers in this study. At the conclusion of the project, co-researchers will be debriefed on the outcomes and implications of the study as a form of reciprocity for their participation (Creswell, 2013).

Summary

The purpose of this transcendental phenomenological study was to describe the SI leader experience. This chapter provided a comprehensive description of the transcendental phenomenological research design utilized for the study, the co-researcher selection process, and

the research site. Additionally, the research procedures, including detailed descriptions of the data collection and analysis methods were addressed, and I described the steps taken to insure trustworthiness. Finally, the chapter outlined the ethical considerations encountered during the study and the actions taken by the researcher to protect the identities of co-researchers and to safeguard study data.

CHAPTER FOUR: FINDINGS

Overview

This chapter begins with a review of the purpose of this study and the research question it attempted to answer, and it introduces the former SI leaders who agreed to participate in this study as co-researchers. To protect the identity of co-researchers, I used pseudonyms that are reflective of co-researcher demographics but that still protect their anonymity. Results of the data analysis process are presented in the form of themes and as direct answers to the research questions that are the focus of this study. The chapter concludes with a summary of study findings, composite textural and structural descriptions of the lived experiences of SI leaders, and a description of the essence of the SI leader experience.

Purpose Statement and Research Questions

The purpose of this transcendental phenomenological study was to describe the experiences of undergraduate students who serve as SI leaders at a mid-sized, private research university in the Midwestern United States. Using Schlossberg's transition theory as a theoretical framework, this study attempted to answer one central research question and four guiding questions.

The central research question of this study was: *How do students who serve as peer educators at a mid-sized, private research university located in the Midwestern United States describe their experience as SI leaders?* The four questions that helped guide this study were:

1. *What were participants' expectations for being an SI leader prior to the experience?*

2. *In what ways were participant expectations met or not met during the SI leader experience?*

3. *What expected and unexpected outcomes did participants experience during the SI leader experience?*

4. *How do participants describe the short-lived and enduring influences of their SI leader experience?*

Co-Researchers

This study was conducted with the assistance of 12 co-researchers who experienced the phenomenon of being an SI leader at the study site. Tables 1, 2, and 3 in Chapter 3 contain detailed demographics of the co-researchers. All of the co-researchers had experienced the SI leader role for at least two semesters and all majored and served in disciplines in STEM fields. Six co-researchers were graduate or professional students at the time of this study while four were still engaged in their undergraduate education experience. The remaining two co-researchers were employed in their respective industries. In my effort to allow their voices to resonate as clearly as possible, quotes used in this chapter, as well as in the subsequent chapter, are quoted verbatim, including any errors in spelling and grammar.

Haley

At the time of this study, Haley was employed as a medical scribe in an emergency department after having completed a Bachelor's of Science degree in Physics at the research site. She is from Los Angeles, California of parents with backgrounds in physics, medicine, engineering, and law enforcement. Haley served as an SI leader for introductory physics for six semesters and worked with numerous faculty members assigned to teach the course over the period of her SI leader tenure. Of her plans for the future, Haley described how her long-held career plans changed as a result of her current position:

> So I graduated with a BS in Physics. I applied to medical school and am working in an Emergency Department as a medical scribe. From working in the Emergency Department and a few other reasons, I've decided not to go to medical school and in fact go to nursing school. So I'm in the process of doing a couple extra prereqs for Nursing, and will be applying soon.

Heath

Heath is a first-year medical student at the research site after having completed a Bachelor's of Arts degree in Biochemistry. Heath served as an SI leader for organic chemistry for seven semesters and worked with one faculty member for one semester and another for six semesters. Of his background and plans for his future, Heath described the path that led him to his current medical school situation:

> So I was born in Alabama (Selma first, and then Birmingham). Moved when I was like 6 years old to Las Vegas. Stayed in Las Vegas 'til I went to college. Yes, applied to college is kind of a crazy experience, 'cause I didn't expect to come all the way to [the Midwestern United States], but we kind of came here and some things worked out, and then we saw the hospital, so figured it was for me. I guess Medicine wise was why I came here and why I wanted to go to med school and all that kind of stuff had sort of stemmed from high school. The high school I went to was an IB high school, and in Las Vegas they do like public schools all over the place, and really to get out, you kind of have to do some sort of Magnet program or something like that, and they stick these Magnet programs in like the inner city schools to kind of keep the school average up. So it was a really good experience there 'cause it's really like, I would say, probably as tough as my junior year of college throughout all of high school, and then being at a

> regular high school where the kids are like from all different walks of life, it was really cool to have both experiences. And then, yeah, came to [the research site]. Kind of kept on the path, was interested in Neuro in high school. That continued to be the case in college. Kind of got into more surgical stuff when I was shadowing in undergrad. I did a lot of Neurosurgery, or I mean Neurology shadowing in undergrad. Didn't really like that it was not hands-on and kind of people were just watching their patients debilitate for years and years and years, and couldn't do much. So started shadowing a little bit in Surgery and it was amazing, which was largely why I did Research there in Neurosurgery and then kind of why I stayed here [at the research site].

Kaiser

Having emigrated from Pakistan with his parents when he was four years old, Kaiser graduated with a Bachelor's degree in Chemistry and is a second-year medical student at an institution near his family home in New York City. He served as an SI leader for three introductory chemistry courses and an introductory physics course during his six semesters as a peer educator. When asked about his high school and early college experiences, he described some of the challenges and rigors of his education in Queens and his initial experience with the SI program in college:

> So I commuted to high school roughly about 40 minutes to an hour, depending the thing I use, the Subway system, New York City Subway. I went to High School in Tribeca, downtown Manhattan. So rigor, it was rather rigorous. It was I guess every state, every city calls it something else, magnet school, specialized school, so the school made you do an admissions tests. There's a few schools, I think six or seven, in New York City where that is the case. So it was rather rigorous, compared to say like my middle school, which

> was you know regular city public school, which was not so rigorous. So academically, I was rather challenged at school. [In college] all 4 years I was involved with the SI program (first as a student and then as both a student and as a SI) I look back with good things to say. Before my time as an SI, and only a student, I looked up at the program as very important transition tool.

Ketan

At the time of this study, Ketan was in his final semester of his undergraduate experience. After completing a Bachelor's of Science degree in Biomedical Engineering, Ketan planned to continue his education in a doctorate program in the same field. He served as an SI leader for introductory physics for two semesters. Like many new college students, Ketan was unsure about his major and ultimate career path:

> So like I did have an interest in Medicine, but I also found a lot of comfort in just thinking 'Okay, if I want to be a physician, it's very clear exactly where I need to go to do that, right? I need to go to undergrad. I need to pursue med school and there are x number of things I need to do,' etc., but then towards the end, I kind of realized that, as in like this transition period, the summer before college, I started to think like 'What would my ideal job be?' Given [its] reputation as a Biomedical Engineering school, I was considering doing Biomedical Engineering as a pre-med. Having considered Biomedical Engineering as a degree made me actually start considering Engineering as a general career path instead. So yeah, so I ended up coming to [college] half Pre-Med, like so debating what I want to do Pre-Med, and then by the end of the first semester, I was pretty sold on just doing Engineering.

Liam

Liam was a first year optometry student in Texas at the time of this study. During his undergraduate experience, Liam served five semesters as an SI leader for organic chemistry and graduated with a Bachelor's degree in Nutritional Biochemistry and Metabolism. Born and raised in the Chicago, Illinois area, Liam described what his high school experience was like:

> For me, my high school experience, one of the big things about it was I was always on like certainly the Honors track, AP track, and at my school it was really great because there was like very little competition among the classes that I was in. I was friends with everyone in class and everyone was very helpful. In all the classes I was in was generally I was with the same people throughout my high school experience. So I think part of that helped in sort of preparing me for some peer teaching kind of learning. I was also on the high school Math team, which I met a lot of good friends and people from other schools who were sort of into the same interests that I was.

Lucas

Lucas is the longest tenured SI leader among this study's co-researchers. Having served as an SI leader for introductory and modern physics for 10 semesters, Lucas completed both a Bachelor's of Science degree and a Master's of Science degree in Engineering during his education experience at the study site. Describing the uncertainty he felt about his college interests, Lucas explained some of his middle school and high school experiences in Windsor, Connecticut:

> I grew up in a small town called Windsor, in Connecticut. I have a younger sister, single mom, and was lucky enough to experience private schooling all the way through, pretty much. I think I had like a private Catholic elementary school. There was a private

> Christian middle school, and like a college prep Catholic high school, so I had a lot of really good opportunities there, like exposure to APs early on, things like that and, yeah. So life in Connecticut was good. I love drawing, painting, sculpting. I always kind of had a flair for it, and it was kind of funny because when it came time to apply for colleges, I had no idea if I wanted to go down the Art route or the Science route, 'cause I was also very good at Math.

Lucy

Lucy grew up in Freeport, Pennsylvania. Having never attended college themselves, Lucy's parents owned a donut shop and were very involved in her education. Realizing her propensity for the sciences and math, they encouraged her to pursue a career in engineering. At the time of this study, Lucy had graduated with a Bachelor's of Science degree in Engineering and was utilizing her math and science skills as an account manager for an engineering organization:

> I had an awesome high school experience. It was like a big enough school that you could pick your friends, but also small enough that you knew every single person. I was the Homecoming Queen. It was fun. I took all the Honors Math and Science classes. We didn't have a lot of Honors and AP classes. We were a really small school. I think we had like three total, but I took all of them, and for Freeport, that was like 'Oh my gosh! I did a lot of Music. I played flute in the Symphonic and Marching Band. I played Alto Sax in the Jazz Band. I played in all the pit orchestras in musicals. I did the fall plays. I like to act. I was the lead role in my junior and senior year think plays. I like to do funny, fun plays, like to make people laugh. I did Quiz Bowl. I was the Quiz Bowl Captain, of course, super nerdy, but yeah, I did that for all four years of high school. So

> everything I did was mostly focused on academics or Arts, like Performing Arts. I was [even] a School Board representative.

Matthew

Matthew began his SI leader career as a second semester, first-year student. Initially intending to study engineering, Matthew changed his major multiple times and finally determined to study chemistry in preparation for applying to medical school. At the time of this study, Matthew was completing the final semester of his undergraduate education before starting medical school in the months following graduation. Matthew served four semesters as an SI leader for materials chemistry for engineers, organic chemistry, and introductory physics. When asked about how he decided to attend college, Matthew described that he struggled to navigate the college selection process and that he wished he had more support to help him better understand how to choose a college and a career:

> I'm not really sure. I think I was just sort of doing it 'cause I felt like that was sort of the next step, and it's like 'Oh well, I've finished high school. I don't want to work at McDonald's like my brother and sister and brother-in-law,' and yada yada yada, so I'm like the first one in my family that's… Well my sister did go to college, but she dropped out after the first semester, so I'm the first one in my family that's actually like gone to college and finished and stuff. So for me, it was sort of very difficult, in the sense that I didn't have much guidance. Like I remember sort of wishing that someone would tell me how to pick a college or where to go or what to do, or how to pick a career and stuff, and the whole time I was just sort of like 'Ah, what am I doing?' So I know I had some interest possibly in Computer Science or Electrical Engineering or maybe then well I've always sort of had a desire to be a doctor. You

> know it was never anything definite. So as far as what I was looking for in a college, it was mostly just the college that would sort of have all those options for me.

Peter

Peter was an SI leader for two different biology courses during his four semesters as a peer educator. Having completed a Bachelor's degree in Biology and Music, Peter went on to graduate school in Pennsylvania and earned a Master's degree in Bioethics and Clinical Ethics Mediation. At the time of this study, Peter was completing the medical school application and interview process and was hoping to receive an offer of admission in the near future. Asked about his high school experience, Peter described his introverted personality, the absence of rigor in his high school academics, and his interests in music:

> So I was a really, really, really, shy kid. Like I would get up in front of the class and like my face would turn beet red. I was that shy. I didn't have like no friends, but I did have like only one or two friends, but they were good friends. I was just very shy and quiet, was really into music. My extracurricular pursuits revolved around that. I played the piano and I was in the choir a lot, so I did stuff like that. I was a good student, but I really, I never really had to try in high school to do well.

Timothy

Although he was not the longest tenured SI leader among the co-researchers of this study, Timothy had, by far, the most diverse SI leader experience. His SI leader tenure began the summer after his freshman year and continued for every semester until he graduated with both a Bachelor's degree and a Master's degree in Biomedical Engineering. During his nine semesters of SI leader experience, Timothy worked with courses in biology, chemistry, engineering, and physics. At the time of this study, Timothy was near completion of medical school and

beginning a doctoral program in Biomedical Engineering. When asked about his humble beginnings in rural Pennsylvania, Timothy described:

> I'd say high school was generally a pretty positive experience. When it's that small, you kind of get to know people. Even though I didn't have college prep teachers, there were a lot of older teachers there who I think come from a slightly different time that really took teaching incredibly seriously. You know it was kind of like they were in their 60s and that was like a pretty, I don't want to say quite prestigious, but it was a job they took really seriously and were invested in their students, and I think I had some good teachers. Like I took AP Chemistry there and I was the only student and the teacher taught it to me in her lunch break.

Wendy

Wendy served as an SI leader for an engineering software course for five semesters. She was one of two SI leaders to pilot the program with the course and is deserving of much credit for creating session activities that are still in use in the course. At the time of this study, she was in her final semester of her undergraduate experience and was anticipating receiving a Bachelor's of Science degree in Biomedical Engineering. Although her college extracurricular activities were limited and strategic, Wendy had a very active and engaging high school experience:

> I didn't really have any trouble with getting good grades [in high school]. I took a lot of AP classes . . . . And then as far as extracurriculars, I was really involved in sports, so I did Track and Field Hockey, and then also outside of high school, I did Ballet with a studio and we did performances twice every year. I was a member of my school's auditioned concert choir, and making it into that upper level was definitely a memorable

> highlight for me. I also auditioned successfully for our all-county choir festival in my junior and senior years, which turned out to be both challenging and rewarding. Besides that, I was involved in my school's National Honor Society, and I was also a member of our "Best Buddies" club, where I was paired with a student with a cognitive disability from the Life Skills class and became a friend and resource for them both inside and outside of classroom.

Whitney

Whitney served as an SI leader for biology for three semesters. At the time of this study, she was completing her final semester of her undergraduate experience and expected to receive a Bachelor's of Science degree in Nursing. When asked about her high school experience in the Columbus, Ohio area, Whitney described how she was just as busy in high school as she continued to be in college:

> I did a lot of sports in high school. I was very active after school. I think is an important factor. Like I, especially junior and senior year, would go to school at 7 in the morning, come home at 10:00 at night. I would do classes. I did like a post-secondary enrollment at OSU, so like every Wednesday, I would go down there for a class and then I would intern on days off, and then I also did Cross Country in the fall and then I horseback rode throughout the year. So I was very busy, but I liked it that way.

These 12 co-researchers completed questionnaires, participated in individual interviews and focus groups, and granted access to assessments and records they completed during their SI leader experience. The data from these sources was analyzed using a phenomenological methodology described by Moustakas (1994) and the results of this study are presented in the

paragraphs that follow, first as themes, and then as direct answers to the research questions that were the focus of this study.

Results

The purpose of this study and its theoretical framework informed the development of the research questions. Similarly, data analysis was undertaken within the same contexts allowing results to be examined from the perspectives of the theoretical framework or as direct answers to stated research questions. Data analysis revealed four primary themes, including (a) importance of relationships; (b) engagement for self and others; (c) valuing teaching and learning; and (d) developing intrapersonal skills for life, learning, and work. Within each of the primary themes, sub-themes developed that further informed the purpose of this study and its theoretical framework (see Table 6).

Table 6

Organization of Themes, Sub-Themes, and Enumerations

Primary Themes	Number of Open-Code Enumerations in Sub-Themes	Sub-Themes
Importance of Relationships	86	Interpersonal Benefits
	196	Support from SI Team Members
Engagement for Self and Other	15	Campus Connectedness
	45	Personal Interests
Valuing Teaching and Learning	44	Experience with Peer Education
	24	Academic Success
	104	Preparedness
	29	Appreciation of Teaching and Learning
Developing Intrapersonal Skills for Life, Learning, and Work	35	Personality Traits
	28	On the Job Training
	31	Time Commitment/ Management
	121	Intrapersonal Benefits

Importance of Relationships

At the very beginning of the data collection process I could begin to see the significance of the role of relationships in the SI leader experience. During the data analysis process, this theme was the first to emerge. As Haley described her early experience helping her fellow students and interacting with her SI leaders:

> During my freshman year at [the study site], I became extremely interested in Physics (which I ended up majoring in). I enjoyed spending my time helping others in my class. I was also close with my P121 SI Leaders (Lucas) as I he was my "Venture Leader" before orientation week. As I saw how much he enjoyed his job, I decided to apply. During my

work as an SI Leader I not only developed a deeper understanding to the platform of my major, but also I became more confident and personable.

The theme of importance of relationships encompassed two sub-themes—(a) interpersonal relationships and (b) support from SI team.

Interpersonal relationships. Many students come to the SI leader experience either feeling that they already have interpersonal skills or that they desire to acquire or develop them. Those having interpersonal skills may see the SI program and its collaborative nature as an opportunity to engage and/or socialize with others around something they have in common. As Peter attested: "Most of all, I'd like to become an SI because I'm a people person. I like working with and helping out my friends and students who share the same interests as I do." Those who consider their interpersonal skills to be a personal weakness see the program as an opportunity to improve or enhance these skills. Heath explained that as a result of his SI experience, "I have become incredibly comfortable talking to a group and interacting with a group. I would not have been able to direct a group this comfortably in the past."

Interpersonal growth. Every co-researcher enthusiastically attested to some form of interpersonal growth attributable to the SI leader experience. Each felt that he or she had grown in a positive way as a person, mostly in terms of being better able to effectively communicate and interact with others as well as being more comfortable in large groups. Haley described her growth in her ability to read students to determine their needs:

> I think it made me a lot better at reading people, I guess, and knowing like when I should explain something and not the other thing, or when I should focus on one thing or not the other thing. So I think it made me a lot more in tune with other people's needs.

Furthermore, she added how being in tune with the needs of others increased her approachability: "I have become extremely approachable, even past students and even friends will seek me out for questions they have." Reflecting on a minor adverse encounter with a faculty member, Peter argued that his SI leader experience helped him "deal with different personalities. I've gotten extremely comfortable with dealing with people. That skill is absolutely invaluable." Haley continued: "I was able to better communicate with peers and superiors, and was able to more easily present and explain my work."

However, the most frequently mentioned area of interpersonal growth mentioned by co-researchers is an increased ability to speak in front of large groups. Prior to becoming SI leaders, most of the co-researchers had never spoke in front of a group larger than an average high school class. However, several of the co-researchers led SI sessions comprised of over 100 students, while a few reported facilitating sessions of over 150 students. As Lucas exclaimed, "I will definitely be more comfortable with speaking in front of large crowds in the future." Similarly, Heath described: "I am now so comfortable speaking in public on anything. I also have learned many different ways to pass on information. It has also made me stay flexible in everything I do and to expect the unexpected." Representative of the larger group of co-researchers, I think Matthew described the sense of interpersonal growth the best: "I feel I've definitely grown in my abilities to interact with others, to be a leader and especially with speaking in front of large groups."

Professional skills development. While most of the co-researchers spoke of the importance of relationships and interpersonal development in the context of their personal development, several also presented their sentiments in a context of developing their interpersonal skills for professional purposes. Matthew expressed logically about his SI leader

experience: “Beyond being a rewarding job where I get to help students, it’s definitely helped improve my leadership and public speaking skills.” Lucy described how her SI experience helped her develop skills that landed her first internship and her first professional job:

> Being an SI definitely had a long-lasting impact on me. My SI experience helped me gain my very first summer internship (Summer 2010) with Rockwell Automation, the company I still work for today. The experience really set me apart from the other candidates, and I was able to use experiences from being and SI to answer interview questions. I also realized that my true passion is in people development.

Similarly, other co-researchers believed that their SI leader experience was significant in helping them develop interpersonal skills they felt would be essential in their professional futures. Wendy best describes the sentiments of several of her fellow co-researchers:

> Being an SI leader influenced me as a professional because it introduced me to the skills of professional communication (with students, the course professor, and SI supervisor), and helped me to establish new connections with faculty that I would not otherwise have been able to have.

Relationships with other students. Without exception, co-researchers valued the relationships they formed with their fellow students during their SI leader experience and counted those relationships among the most meaningful aspects of their overall experience. Liam readily admitted that, “Being an SI leader allowed me to have a greater presence on campus, helping me to meet many more students and friends than I ever would have.” Likewise, Wendy explained that the most rewarding aspect of her SI experience was the connections she made with the students who regularly came to her sessions. Describing his interactions with

students, Timothy described the nature of the relationships he had with many of the student who attended his session:

> The student interactions. It is a lot of fun to take that sort of "mentor" role as an SI leader. More so this year than previous years, I feel like students I feel like students look to me for advice beyond class. It feels good to be someone that people seem to look up to.

Support from members of the SI team. Most of the data that informed the sub-theme of interpersonal relationships was extracted from questionnaires and individual interviews and corroborated through data retrieved from archival records. Therefore, much of the data was provided after co-researchers had time to process the overall impact and meaning of their SI leader experience. However, the sub-theme of support from members of the SI team was informed by the analysis of data that was generated by co-researchers during their SI leader experience in the form of formative and summative assessments completed each semester of their SI leader tenure. These findings reveal that co-researchers highly value the support and assistance they received from other members of the SI team including other SI leaders, SI faculty members, and their SI supervisor.

Other SI leaders. Interactions with other SI leaders took the form of pre-semester training sessions, group meetings over the course of a semester, or peer observations of SI sessions conducted by and for each SI leader each semester. Data analysis revealed that co-researchers appreciated learning from one another. Kaiser explained his attitude towards pre-semester training: "Pre-semester training was definitely beneficial because we got to talk to more experienced SI leaders." About his peer observation experience, Peter explained: "Observing a fellow SI leader, I always learn new ways of presenting material. I always have gotten great feedback from SI leaders. They notice things that I don't know I'm doing wrong." Similarly,

Lucy attributed her success to her fellow SI leaders: "I think having great partners was a big reason I succeeded." Of having the same SI partner, Haley admitted:

> Being paired with Lucas was extremely helpful, and I learned a lot from him. I was constantly looking at his performances and ways of teaching to help improve upon my own. By the end of the semester I could even give him hints on what he could improve on.

Reflecting on his peer observation experience, Kaiser further lamented: ". . . it is a lot better to hear your faults (or strong points) from a peer. I found my peer observations helpful because there is always an exchange of ideas on how to hold sessions." Lucy echoed the same sentiments: "It's always helpful to get feedback about how you're doing your job, and it's always helpful to watch someone else do that job."

SI faculty members. When asked about the resources he valued most during his experience as an SI leader, Kaiser explained: "[my professor] and are I are like a married couple at this point. [He] has been my professor before . . . . He is very active in helping and it helps immensely." Lucy described her sentiments of the importance of her course professor: [my professor] has been wonderful. He really cares about the students and recognizes our role in assisting him with the class. He's been extremely helpful in planning." Of the support she received from her faculty member, Whitney described: "What I have found most helpful is our group or department meetings. Especially when we got to talk with the professor. Discussing ways that other leaders have used to utilize many different learning styles."

Data analysis revealed numerous other instances of similar comments made about the impact of faculty on their experience. Some of the comments most frequently mentioned include, "very helpful in planning sessions," "an excellent resource for practice problems and

ideas for session activities," "always willing to help when I have questions," "really cares about students and how best to help them," "understands the SI program and my role in helping students do well in the course," and "it's great when they encourage students to attend sessions."

In a few cases, co-researchers described how much they would have appreciated more faculty support during their experience. For example, Lucas described a time when he worked with a professor he had not worked with in the course before:

> When I was working with [Professor] he would get into topics I hadn't learned yet. I had to not only learn them, but some days I'd have to learn it and then give an SI session on it like the very next day, and so it was a little nerve-racking.

Similarly, when working with a faculty member new to the SI program, Peter described the frustration of the absence of a good working relationship: "I found it quite difficult at times to deal with one instructor in particular, as he was not very familiar with the SI program, how to make the relationship between professors and SIs a synergistic one." When asked about the least rewarding aspect of his SI leader experience, he further exclaimed: "Dealing with the repercussions of the teacher and my not keeping open lines of communication."

SI supervisor. All co-researchers valued the resources and support provided by their SI supervisor whether in the form of formal training, mentoring, or feedback provided after formal SI session observations. Of her SI supervisor, Whitney shared that:

> [The SI supervisor] has helped in our classes when we go over the different techniques and discuss in groups because it reminds me off all the different techniques I have at my disposal as well as inspiring me with some of the creative ideas other SI leaders implemented.

Similarly, Lucas recalled that he frequently took advantage of the availability of his supervisor to gain insight into how to effectively facilitate sessions. "I owe most of my success to the relationship I developed with [my supervisor] early on in the SI program." He further added:

> My SI supervisor was (and continues to be) a fantastic mentor, role model, and friend. His feedback has always been invaluable and I have used [his] suggestions to solidify and perfect my performance as an SI leader throughout the 4 years I have been in the program. For the first couple years, his feedback was filled with helpful tips about making my SI sessions more effective such as including an intro and conclusion section in my sessions or having a section with key information available so the students would have an educational tether back to the important aspects of the session. As I became a more experienced SI leader, his feedback continued to be incredibly helpful in terms of keeping the fundamentals of the SI program in perspective.

Data analysis revealed numerous instances made by co-researchers in regards to the impact of their SI supervisor on their experience. Although several referenced the mentoring aspect of their relationship with their supervisor, all found the feedback provided following formal SI session observations to be among the most important. Of the feedback provided by his supervisor, Liam attested: "[my supervisor] was helpful in his observation and was able to provide me with some tips to better my presentational skills." Wendy added: "Yes, the supervisor observation was very helpful. I always get a few good suggestions that I can apply for the rest of the semester." Comments similar to these were frequently noted in interviews, questionnaires, and most frequently in archival records.

The theme of importance of relationship was identified early in the data analysis process and was further revealed in the sub-themes of interpersonal growth and support from members of

the SI team. Relationships served, either directly or indirectly, as a common thread in the remaining themes discussed below.

Engagement for Self and Others

This theme emerged as co-researchers described why they initially pursued a position as an SI leader. Some expressed reasons that were practical and logical to their future plans and their immediate interests. Heath described when he arrived on campus, "I was looking for a job or something right off the bat." However, Ketan was thinking about his future career plans when he first considered an SI position:

> I have been considering becoming a professor for some time as a career path. I have always imagined that I would enjoy a teaching type of job, and a position as an SI would help me confirm what I want to do after college.

Still, others pursued a position as an SI leader for reasons more altruistic in nature. Liam described the basis for his wanting to be an SI leader: "Since high school, I have always enjoyed being someone that my classmates could go to for help. It feels great whenever I am able to work with my peers until they are able to grasp a confusing concept."

The theme of engagement for self and others encompassed two sub-themes—(a) campus connectedness and (b) personal interests.

Campus connectedness. All of the co-researchers of this study viewed their college experience as a meaningful and positive experience. Each testified to a desire to do more than simply go to class and take tests. Each wanted their college experience to be something more memorable, something more purposeful; they wanted to feel as if they belonged to the campus and that they contributed to the larger campus community. Timothy described: "I enjoyed being

a part of the university community and knowing that I could be a meaningful component in the college experience of others." He continued:

> I had several other jobs on campus during my time there, but only with SI did I also feel like part of the university community while I worked. By this, I mean that SI was not just part of my college experience, but my role as a SI was a part of many others' college experience. It gave me a kind of pride in my work, and incentive to try to do my best.

Of her feeling of connection during her experience, Wendy explained:

> I feel more of a sense of connection to the school because I get to converse with faculty and with students outside of my grade level. I got to form relationships with faculty such as the SI supervisor and my course professor, which helped me feel more connected to the university as a whole.

Similarly, Haley attested: "Being and SI leader has given me a sense of purpose on this campus."

Personal interests. Each co-researcher expressed personal interests for wanting to become an SI leader. Some of these interests were pragmatic while others were more altruistic in nature. Several co-researchers had considered academia as a future career option and sought an experience that would provide them a glimpse into what it might be like to be a teacher or instructor while others envisioned a position in which they could draw on their previous leadership experience or further enhance their leadership skills. Timothy explained about his thoughts as a first-year college student, "You know coming into college, 'Do I want to be a Professor or not? I don't know. I should probably learn if I want to be a teacher or not . . . .' But, Matthew noted:

> I wanted to get involved in something. I knew I wanted to have a job, didn't want to work at fast food . . . I've just always had that sort of leadership drive, just want to like, I don't know, be a leader.

Whether a co-researcher considered an SI position as a glimpse into a future career or as a job that provided a leadership opportunity, a prevailing theme among all of the co-researchers was a desire to help others in a way they felt was the most significant to their peers—helping them achieve academic success. Describing her motivations for applying for an SI leader position, Wendy attested: "I liked the idea of I guess how I saw the SI Leaders as role models and I wanted to do that for new, incoming freshmen and really get the chance to encourage them in their classes." Similarly, Whitney described:

> I like working with students and helping my peers this past semester really solidified this [desire to help others]. I also try to attend SI sessions for my own classes as often as possible because I find them very helpful and I am forever grateful those [supplemental] instructors for helping me! I would love to return the favor to other students.

The theme of engagement for self and others emerged as co-researchers described the circumstance surrounding their decision to pursue a position as an SI leader. Some expressed reasons that were practical, such as simply having a job, while other felt the position was relevant to future career plans. Others saw the experience as an opportunity to engage with the larger campus community or as a means of helping others progress academically. As stated previously, relationships continued to serve as a common thread in this theme as well as in the remaining themes.

Valuing Teaching and Learning

It was not unexpected that the theme of valuing teaching and learning emerged from the data. After all, teaching and learning are the bedrock foundations of the SI program and the SI leader position. Without exception, each co-researcher provided testimonies of how learning was an integral part of who they are personally and how important learning was to their future. Furthermore, co-researchers attested to the value of teaching as part of their own personal and professional learning. The theme of valuing teaching and learning included four sub-themes—(a) previous experience with peer education, (b) previous academic success, (c) preparedness, and (d) appreciation of teaching and learning.

Previous academic success and experience with peer education. The student body at the study site is comprised of students with successful high school experiences and who are motivated to do well academically in college. Many come from rigorous high school experiences or finished among the top tiers of their graduating classes and come to the institution to study in STEM disciplines or a pre-medicine curriculum. It is not uncommon for many students to have engaged in some form of peer assistance program during their high school experience. Furthermore, many students bring with them a significant number of transfer credits earned through Advanced Placement (AP) courses or college courses taken during their high school experience. As such, with these highly motivated students come high expectations for continued academic success and a certain level of anxiety about their ability to do well at the college level. It is this initial anxiety that leads many students to attend SI sessions. Each co-researcher cited their high school and early college academic success, their previous peer assistance experience, and their participation in the University's SI program as first-year students as motivations for seeking a position as an SI leader. For example, Kaiser indicated on his initial

SI leader application: “I have a strong understanding of chemistry and excel in my current [chemistry] class. Similarly, Whitney attested to her previous academic experience on her application: “I took an introductory course in high school, and then [biology] at [the study site] and I feel that I know the content well.” However, speaking of his previous experience with the SI program as a regular SI session attendee, Lucas articulated well what several other co-researchers indicated as a key contributor to their desire to become an SI leader:

> I had a really great experience with my SI leaders in [physics] and I want to be able to pass that on to the next classes. There were definitely some concepts that I initially struggled through in [physics], but it was thanks to my SI Leaders that I was able to nail it in the exams and prove I understood it 100%.

Speaking of the impact of her earlier experience with the SI program, Lucy explained:

> The SI leaders were very helpful, and (maybe even more importantly) approachable, and passionate about what they were doing. I looked up to them, and during my second semester, I decided that I wanted to apply to be an SI leader the following year (my sophomore year).

Similarly, Ketan described how his previous experience with the SI program influenced him. “I definitely saw the value that they [SI leader] were providing for me and my peers, so I thought that you know doing the same would be rewarding in its own sense.”

Although co-researchers were emphatic about their previous academic success and their early experience with the SI program, it was clear in the data that they were not fully aware what the SI leader experience entailed when it came to actually facilitating the learning process. In describing how they were able to manage the SI leader experience, they credited some of their success to the preparation they received before and during their experience.

Preparedness. It is unlikely that any student can fully anticipate all of the realities associated with doing something they had never done before. As Matthew described: "I felt particularly nervous in the very beginning since I was not quite yet sure how to plan a session." Two of the most predominant items revealed in the sub-theme of preparation were an appreciation for session planning and SI leader training. When asked how he overcame the challenge of managing SI sessions, Matthew simply responded: "Prepare. Like. Crazy." Asked the same question, Lucas immediately exclaimed: "Prepare! You're about a billion times more effective if you have some sort of plan of attack going in." Similarly, Haley found a basic session planning format to be essential to the effectiveness of her sessions: "I think the session planning has been most helpful, in terms of having a beginning middle and end." Referencing the value of session planning addressed in formal SI leader training, Ketan added:

> The session we had in EDUC 200 in which we filled out a session preparation form after discussing ways to open a session was very helpful. It gave a nice visual for what the structure of our sessions should look like.

Discussing their thoughts about the training they receive before and during their SI leader experience, without exception, each co-researcher lamented on some of the subtle lessons implied from the larger topics taught during training. Here again the thread of relationships was clearly visible in their commentaries. Liam explained: "Become your students' friend rather than their teacher/superior/resident genius. It makes sessions a lot more fun and interactive when your attendees are comfortable talking to you." In the same context, Wendy stated: "Your sessions will be a lot more enjoyable if you make them as informal as possible – present yourself as a peer, not as a superior." Or as Ketan suggested: "Say hi to students outside of your sessions as much as you can. It goes a long way." Other recurring comments made by co-researchers

include: “Be yourself,” “Be personable and approachable,” “Remember, first impressions are important,” and “learn and remember students’ names.” These are all themes that co-researchers attributed to their initial and on-going training during their SI leader experience.

Although the theme of valuing teaching and learning was inclusive of the sub-themes of previous experience with peer education, previous academic success, and preparedness, no sub-theme informed this primary theme more than the sub-theme of appreciation of teaching and learning.

Appreciation of teaching and learning. As an educator, for me, this was the most exciting sub-theme to emerge from the data collection and data analysis processes. Not only do students who attend SI sessions benefit from participating in the program, but the students who serve as facilitators of the SI sessions benefit as well. Discussing how her SI leader experience affected her as a learner, Whitney stated: “It has influenced me to become a better learner myself, become more self-aware, and to have a better understanding of others.” In the context of his ability to succeed as a medical student, Heath attested:

> As a learner, it made me really get down to what kind of learner I am, something that has been invaluable in medical school as the material we've needed to learn has increased drastically. I have learned a ton about the way I learn through it and wouldn’t be the same if I had not been an SI.

Similarly, in the context of his learning and working with others, Ketan described:

> [My SI experience] made me more effective in my own work with groups. Skills such as recognizing individuals’ unique strengths have translated to my role as a design team leader in a capstone course and as an intern at a growing startup.

Although co-researchers affirmed that their experience as an SI leader served them well as learners, several recognized an influence on their appreciation for teaching. As Peter described: "I learned a lot about the learning process and how to teach someone something. Checking for understanding is key! Being able to teach someone will help in a myriad of different ways/careers." Discussing how her experience changed her thoughts about how others learn and the likelihood of her pursuing a teaching position in the future, Whitney explained:

> I think SI has dramatically changed how I look at academics and how others learn. That it is always way more complex than anyone thinks and that you can't ever judge how someone learns, or what subject may be difficult or easy for them. It has also strongly re-affirmed my love for teaching and my desire to potentially become a professor/clinical instructor in the far future.

However, no co-researcher was more adamant about the correlation between the SI leader experience and an appreciation and passion for teaching than Timothy:

> I was interested in exploring teaching as a future career when I entered college. After SI, I was certain that I wanted to include formal teaching of undergraduate students in my career. It showed me how much I learned through that, that I like teaching enough that I want to do it as part of my career. I plan on pursuing a certificate in college teaching at my current university; I don't expect I would have done this without experience in SI. I feel that being a SI leader was more than a "job" for me at the university.

The theme of valuing teaching and learning was somewhat expected to emerge in this study. As teaching and learning are the cornerstones of most, if not all, academic support programs, it was exciting that each co-researcher perceived how learning was integral to them

personally and to their futures and that each attested to the value of teaching as part of their own personal and professional learning.

Developing Intrapersonal Skills for Life, Learning, and Work

Similar to the theme of relationships, the theme of developing intrapersonal skills permeated the data collected from co-researchers. In some instances, co-researchers felt they brought the intrapersonal skills with them to the SI leader experience, while in other cases, they felt they enhanced or developed the skills during the experience. Still, for others, they discovered the skills only after having completed their SI experience. This theme of developing intrapersonal skills for life, learning, and work manifested itself in four diverse sub-themes—(a) personality traits, (b) on the job training, (c) time commitment/management, and (d) intrapersonal growth.

Personality traits. In addition to their previous academic success, experiences as peer educators during high school, and positive perspective of SI as a result of their participation in the program as motivations to pursue an SI leader position, co-researchers were also motivated by their perceived individual personality traits and skillsets. Among these include experience in public speaking and effective communication skills, strong organizational and leadership skills, self-confidence in their ability to perform the tasks of an SI leader, and having a personality that would make them approachable and personal to other students. Kaiser explained: "I also feel that my public speaking ability is more than adequate to allow me to communicate clearly with other students." Likewise, Whitney indicated: "Speaking in front of my peers is very natural for me and for [this reason] I believe this position would be a great fit for me." Heath noted: "I knew that I had good rapport with people. I could always spark up a conversation with people." Speaking more to his personality, Lucas stated on his SI leader application:

> I am outgoing and easily approachable on basically everything. Because of this, I can relate more easily to those that may not grasp the key concepts right away and work with them in a similar way my SI's worked with me when I originally had problems.

Similarly, in outlining his motivations for wanting to become an SI leader, Peter described himself in this way: "Most of all, I'd like to become an SI because I'm a people person. I like working with and helping out my friends and students who share the same interests as I do." In describing why she would be a great SI leader, Wendy asserted: "I think that I'm empathetic, sensitive, patient, and understanding, which helps me to relate well to the students who come to sessions." Other personality traits repeated by several co-researchers included references to their likeability, their ability to speak clearly and confidently, and their ability to relate to where students are academically.

On the job training. Although session planning and training were among the most mentioned sub-themes in the valuing teaching and learning theme, equally prominent in this theme was the significance of the benefits derived from simply doing the SI leader job. For example, when asked about resources in addition to formal training, Peter explained: "there is no training like actually doing the thing you're being trained to do." Others echoed this same sentiment. Describing how she viewed the impact of training in her subsequent semesters as an SI leader, Wendy stated:

> I feel that this semester I haven't relied on new training as much, because I have so much experience behind me. As I've said in the past though, the best training is experience, and that's something I continue to see as my sessions improve with time.

Similarly, while trying not to imply that formal training is not necessary, Liam confided:

> [Formal training] was helpful in learning different techniques we could use as an SI, as well as specific ways to handle exam reviews. I do think that most of the learning, however, occurs just by holding SI sessions, gauging the students' response, and adjusting certain techniques.

Attesting to the benefits of her one semester of experience as an SI leader Whitney confided: "Since this is my second semester as an SI I feel I have begun to really solidify and refine some of the techniques and skills I learned in first semester." However, I think Timothy summed up best what all of the co-researchers directly or indirectly described about the role of on the job training in the their overall SI leader experience: "This job required quite a bit of on the job experience before getting used to it."

Time commitment/management. Similar to the college experience itself, the SI leader position comes with responsibilities that are time sensitive and time intensive. SI session planning is an on-going activity and SI sessions are regularly scheduled two to three times each week throughout the semester. Describing his early experience as an SI leader, Liam attested that: "having to balance this new job as an SI Leader, as well as taking second semester Organic Chemistry with my other classes, time commitment was the most difficult sort of thing for me to handle." Although the time commitment required to be an SI leader limited opportunities to participate in other activities, Haley still found the experience to be enjoyable. "I think the time commitments are always hindering on your personal life, but I enjoyed that I got to use my time at work to help others and to further my personal development." Similarly, Ketan explained that during his experience: "time management was necessary as an SI leader; holding a part-time job on top of other extracurriculars/employment was not easy to manage, and 10 hours per week sounds like much less on paper." Even after seven semesters of experience as an SI leader,

Timothy continued to recognize the importance of effective time management: “The time commitment always gets tougher. Senior year + interviews + SI has been rough.”

Intrapersonal growth. This sub-theme was informed by the many ways co-researchers described that they grew as individuals during their SI experience. As with other themes, these quotes are representative of sentiments expressed by each co-researcher either during or after their SI leader experience. Timothy described how SI helped him “grow up” as an individual:

> SI gave me a chance to take responsibility for myself, as well as other people, and I think that was pretty important for me in the grand scheme of things. Other experiences can probably do that to, but for me, I can attribute a lot of "growing up" to SI.

Similarly, Heath spoke of his time as an SI leader:

> Being part of the SI family is awesome and supportive, and you meet so many individuals through the sessions; it’s really something to be cherished. It has taught me just as much about myself, as it has about organic chemistry.

Describing how she developed as a person, Wendy talked about her level of maturity and her sense of responsibility and commitment:

> I think that being an SI leader has helped me develop as a person in so many different ways – my public speaking skills, my ability to make connections/form relationships with others, and even my maturity and sense of responsibility and commitment. Furthermore, it has made me more empathetic to incoming freshmen and their struggles with introductory courses . . . . My SI leader experience helped me to develop as a person because the opportunity to work with younger students at [the study site] helped me to develop new levels of patience and empathy beyond what I saw in my peers.

Other co-researchers spoke of their SI leader experience as having a positive impact on their confidence. Liam described how: "Being an SI leader helped me grow tremendously as a public speaker, and has increased my confidence as an academic." However, Lucas reflected on how his SI leader experience helped him grow inside and outside of his current workplace:

> As a learner, I developed mental flexibility and became more confident in my abilities to approach technical problems that seemingly have no apparent solution.
>
> From a personal stance, SI has given me confidence to succeed in areas outside the workplace as well. From that confidence, I feel that I have honed certain charismatic qualities in public speaking and personal interaction, qualities that I developed by working with scores of peers in a presentational/interactive environment. These charismatic qualities have also allowed me to thrive in the professional workspace, processing information quickly and being able to present it back to my colleagues in a simple and concise way.

The theme of developing intrapersonal skills for life, learning, and work manifested itself in four sub-themes comprised of personality traits, on the job training, time commitment/management, and intrapersonal growth. In each of these sub-themes, co-researchers attested that the SI leader experience enhanced, developed, shaped, or changed them individually. Although this theme manifested itself in broad and diverse aspects of the SI leader experience, its emergence could not be marginalized given the number of enumerations this sub-theme showed up in the data analysis process.

As stated previously, the research questions this study attempted to answer were derived from the purpose of this study and its theoretical framework. Likewise, data analysis was undertaken within the same context which allowed the results to be examined from the

perspectives of the theoretical framework or as direct answers to stated research questions. As described above, data analysis revealed the four primary themes of (a) importance of relationships; (b) engagement for self and others; (c) valuing teaching and learning, and (d) developing intrapersonal skills for life, learning, and work. Within each of these themes, sub-themes developed that further informed the purpose of this and its theoretical framework (see Table 6).

Research Question Results

The themes and sub-themes discussed above also aided in answering the research questions that were the focus of this study. The central research question asked: *How do students who serve as peer educators at a mid-sized, private research university located in the Midwestern United States describe their experience as SI leaders?* The answer to this question is informed by the findings related to the four guiding questions below and revealed in the phenomenological descriptions in the following section of this chapter.

Guiding question one inquired: *What were participants' expectations for being an SI leader prior to the experience?* This question sought to describe the expectations students held for the SI leader experience and the circumstances and motivations that led them to "move in" to the role of SI leader and the challenges they first encountered (Anderson et al., 2012: Chickering & Schlossberg, 2002; Schlossberg, 2011; Schlossberg et al., 1989). For all of the co-researchers, the decision to become an SI leader was intentional and was accompanied by the expectations they had for the experience. Furthermore, they were motivated to pursue an SI leader position either by their previous experiences as peer educators, their previous or current level of academic success, or their experience with the SI program as students in an SI supported course. Ketan described his expectation for the experience and why he wanted to be an SI leader: "to

reciprocate the help I received." For Lucy, it was more about her success in the course and her passion for physics: "I was particularly interested in the Physics 121 class, as I felt that I had mastered the material and was very passionate about the subject matter." For Whitney, it was her fondness for helping others: "I like working with students and helping my peers this past semester really solidified this."

Co-researchers made this conscious decision to take on a role that would require them to develop and/or apply skills above and beyond those needed to succeed solely as a student. Furthermore, each co-researcher felt they had at least some of the necessary skills and qualities that would serve as the foundation for success in the position including public speaking and communication skills, personality traits that make them amiable to other students, organizational skills to insure efficiency, and confidence in their ability to be effective in the position. As Wendy attested: "I would be a good SI leader because I work well with others, have good communication skills, and genuinely want to help others to succeed." Similarly, Lucas described that he would be well-suited to be an SI leader because:

> I am outgoing and easily approachable on basically everything. I am not the kind of person that exudes a superior sense of knowledge in a subject I am good at. Because of this, I can relate more easily to those that may not grasp the key concepts right away and work with them in a similar way my SI's worked with me when I originally had problems.

Finally, each co-researcher expressed personal interests for wanting to become an SI leader. These interests ranged from aspirations to enter the teaching or professorial professions to more altruistic reasons such as helping others and enhancing leadership ability. As Ketan mentioned earlier, he pursued an SI leader position because he was considering becoming a

professor. Matthew viewed the position as "a valuable experience, particularly in terms of leadership." However, Heath explained his motivation to be an SI as, "the SI sessions were a huge help for me and I would love to be that help to someone else."

Guiding question two asked: *In what ways were participant expectations met or not met during the SI leader experience?* This question aimed to describe how co-researchers "moved through" the SI leader experience by revealing the lived realities of the experience. Anderson et al., (2012) established that a person arrives at this stage of the transition process when they "know the ropes" (p. 57). Once SI leaders arrived at this stage of their experience, it was expected that they would then be able to determine if their expectations for the SI leader role were met or not met and what challenges, if any, they experienced and how they overcame them. Without exception, all of the co-researchers admitted that their expectations for their SI leader experience were met—it was "pretty much what they thought it would be." However, each of them also disclosed having encountered aspects of the experience that they did not expect; most noted, the inflexibility of the demands the position placed on their time. Even as a seasoned, experienced SI leader, Lucas attested: "sometimes the time commitment can be daunting." Liam described his early struggles with time management as an SI leader in this way: "Having to balance this new job as an SI Leader, as well as taking second semester Organic Chemistry with my other classes, time commitment was the most difficult sort of thing for me to handle."

Co-researchers also experienced challenges with creating and maintaining relationships with course instructors and students, something they did not expect. This was noted most by co-researchers in situations when they were working with faculty members and students unfamiliar with the SI program—faculty members unfamiliar with the role and responsibilities of the SI leader, and students unfamiliar with the program and therefore not having realistic expectations

of their SI leaders themselves. In discussing the least rewarding aspect of his SI leader experience, Peter readily exclaimed: "Dealing with the repercussions of the teacher and my not keeping open lines of communication." Of the unrealistic expectations for SI sessions placed on her by students, Lucy explained that "having tough conversations with people about expectations or just tough conversations in general" was the most significant challenge she faced during her SI leader experience.

Guiding question three asked: *What expected and unexpected outcomes did participants experience during the SI leader experience?* As with research question two, this question was intended to reveal information to further describe the "moving through" phase of the SI leader experience. Specifically, how co-researchers managed the changes in roles, relationships, and assumptions associated with the SI leader experience. The answer to this question revealed itself in the form of strategies related to the unexpected challenges discussed in the answer to guiding question two. The co-researchers identified three dominant strategies for managing their SI leader experience—a positive relationship with the course professor; developing and utilizing effective time management habits; and PREPARE, PREPARE, PREPARE.

The co-researchers identified the importance of creating and nurturing a good working relationship with the course professor as essential to their success as SI leaders. As described in the answer to guiding question two, not having a good working relationship with the course professor showed to be a significant challenge to co-researchers. Of his working relationship with his course professor, Kaiser explained: "[my professor] is extremely supportive of the SI program and encourages students to attend while also helping me prepare and execute sessions." Similarly, Liam described his course professor: "[my professor] has been very helpful in promoting SI sessions and being available for those students who might need more individual

assistance." In describing her working relationship with her course professor, Lucy attested to his level of support and understanding for her role as an SI leader: "[my professor] has been wonderful. He really cares about the students and recognizes our role in assisting him with the class."

Effective time management habits and a focus on preparation were likely recurring strategies to address the same challenge—the inflexibility of the demands the position placed on their time. Some co-researchers saw effective time management as the solution to this challenge, while others saw a focus on spending time to adequately prepare for sessions as the solution. In either case, allocating the necessary time to the tasks of the SI leader position was clearly evident as a strategy for managing the changes in roles, relationships, and assumptions associated with the SI leader experience. Whitney best articulated this idea when she reflected: "if you can't properly spend the time to prepare, then it's not worth your time or the students' to go to that session." Or as Lucas described: "Prepare! You're about a billion times more effective if you have some sort of plan of attack going in." Haley concurred: "Always, always, always be prepared [for your SI sessions]."

Guiding question four probed: *How do participants describe the short-lived and enduring influences of their SI leader experience?* Finally, this question sought to describe the "moving out" phase of the experience and was intended to provide co-researchers an opportunity to reflect on their SI leader experience to identify in what ways, if any, it contributed to their undergraduate experience and their lives or careers since. This guiding question produced data that largely informed the theme developing intrapersonal skills for life, learning, and work. Each co-researcher emphatically indicated that their SI leader experienced influenced and shaped them in significant and meaningful ways. Among the ways most cited by co-researcher are:

- How to be a better friend
- How to be a better teacher
- Increased levels of self-confidence
- Growth in level of maturity
- Academic growth as a student
- Improved communication/presentation skills
- Improved people skills
- Increased levels of patience and empathy
- Increase in personal responsibility
- Improved time management skills
- How to be a better team player
- Improved critical thinking skills
- A better understanding of how they learn and how others learn

Attesting to his appreciation of effective time management, Ketan explained how his SI leader experience has influenced him: "it's taught me to set aside, to actually block out times where I'm doing very specific things, because I've learned that things that aren't scheduled rarely get done." Of the influence of her experience, Wendy described that "being an SI leader has helped me develop as a person in so many different ways – my public speaking skills, my ability to make connections/form relationships with others, and even my maturity and sense of responsibility and commitment." Similarly, Timothy described: "[being an SI leader] gave me a chance to take responsibility for myself." However, no co-researcher was more emphatic about the lasting influence of his SI leader experience than Lucas when he explained how his SI experienced contributed directly to his performance in an exclusive NASA internship:

After my experience as an SI leader, I was lucky enough to receive acceptance into the NASA Ames Academy for Space Exploration for the summer of 2015. During this experience, I worked with nine other Research Associates (RAs) that were in similar graduate programs as I. By day, we worked on individual projects in various professional teams of NASA contractors throughout the facility. By night, all ten of us worked on our group project, a project we conceived and designed ourselves to fill the technology gap in planetary exploration. Throughout this incredible experience, I found myself relying heavily on techniques and strategies I learned from the SI program. During group discussions with the other RAs I found that I took on the role of facilitating conversation by promoting brainstorming and suggesting the utilization individual's talents in the group. Since most of the RAs came from completely different technical backgrounds, my ability help facilitate understanding in the rest of the group helped us to pull together an impressive project in under ten weeks. Meanwhile, by day, I worked on my individual project under the thermal protection division, which was a fast paced, highly efficient, profession environment. Often times in team meetings, my colleagues would present complicated and seemingly esoteric information, however, due to my experience with the SI program, I refused to be intimidated and I proceeded to ask intelligent questions when necessary. This allowed me to become rapidly acclimated to a project that the rest of the contractors had been working on for years. I learned quickly, and by the end of my experience working with the thermal protection division, I succeeded in solving a technical problem that was originally thought to have no solution, earning me the respect and gratitude of my professional peers. Needless to say, my experience with the SI program has been resoundingly positive.

This leads back the central research question of this study: *How do students who serve as peer educators at a mid-sized, private research university located in the Midwestern United States describe their experience as SI leaders?* Data analysis revealed four primary themes that informed the answer to this research question, specifically that co-researchers described their experience as SI leaders in terms of (a) importance of relationships; (b) engagement for self and others; (c) valuing teaching and learning, and (d) developing intrapersonal skills for life, learning, and work. Within these primary themes, sub-themes further informed the answer to this central research question (see Table 6).

Phenomenological Descriptions

Data analysis produced composite textural and structural descriptions of the lived experiences of SI leaders and a description of the essence of the SI leader experience. Moustakas (1994) described these textures as descriptions of the characteristics that comprise the phenomenon, in this case the SI leader experience. The composite textural description of the SI leader experience, or the *what* experienced by the co-researchers, can be summarized as *a student engagement activity with unexpected developmental benefits.* Co-researchers actively sought to engage in the SI program as peer educators, each motivated by his or her own expectations for the experience. All completed their SI leader experience finding that they had developed in ways they did not expect, but in ways that they found rewarding and beneficial.

Approaching the phenomenon from the perspective of each co-researcher I reached a composite structural description of the phenomenon, or the *how* of the SI leader experience (Moustakas, 1994, p. 98). The composite structural description of the SI leader experience is best summarized as *personal and professional development through academic relationships*. Although the co-researchers experienced the same phenomenon, they each experienced it in their

own unique way and derived their own meaning of the experience. However, the common thread woven through the experiences of all co-researchers is that of relationships, whether it is relationships with faculty, staff, students, or other SI leaders. Co-researchers attributed many aspects of their experience to the relationships they formed, or in isolated cases did not form, during the experience.

Finally, Moustakas (1994) asserted that the phenomenologist must "intuitive-reflectively" integrate the textural and structural descriptions to synthesize the meaning and essence of the SI leader experience (p. 181). Although the essence of any experience cannot ever be completely realized, this synthesis of the textural and structural descriptions using phenomenological reduction and imaginative variation represents the essence of the SI leader experience at a mid-sized private research university in the Midwestern United States at one point in time through the perspective of this researcher (Moustakas, 1994). The essence of the experience for co-researchers who served as SI leaders at a mid-sized, private research university located in the Midwestern United States can be synthesized as *transformational and collaborative*. The co-researchers in this study were each transformed in their own unique way—as a learner, as a peer educator, as a colleague, as a friend, as a leader, or as a person. They saw the necessity and value of forming and nurturing relationships with others to achieve a common goal, a goal to help others succeed.

Summary

This chapter provided brief profiles of the co-researchers of this study as well as the findings from the data analysis process. Themes and associated sub-themes that emerged from data analysis were presented and the research questions were answered. This chapter concluded

with a final summary of the findings in the form of composite textural and structural descriptions and a narrative of the essence of the SI leader experience.

CHAPTER FIVE: DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

Overview

The purpose of this transcendental phenomenological study was to describe the experiences of undergraduate students who serve as SI leaders at a mid-sized, private research university in the Midwestern United States. This chapter presents a review of research findings and discusses the findings in relationship to the literature reviewed in Chapter Two. Theoretical and empirical implications of the study are discussed followed by an outline of study limitations and suggestions for future research. The chapter concludes with a final summary.

Summary of Findings

The results of this research were achieved utilizing a transcendental phenomenological research methodology described by Moustakas (1994) and were presented in Chapter Four of this manuscript. Results were presented in the form of themes, answers to research questions, and detailed phenomenological descriptions. These results are briefly restated below.

Themes

The four primary themes revealed in this study of students who serve as SI leaders included (a) importance of relationships; (b) engagement for self and others; (c) valuing teaching and learning; and (d) developing intrapersonal skills for life, learning, and work. The first, and most predominant, of these themes is the importance of relationships. This theme encompassed two sub-themes—interpersonal relationships and support from the SI team. Co-researchers came to the SI leader experience either believing they already had interpersonal skills to succeed as an SI leader or with a desire to acquire or develop them. However, when asked to reflect on their experience, each felt that he or she had grown in a positive way personally and professionally as a result of serving as an SI leader, especially in their ability to communicate with peers and

faculty members and their ability to speak in front of large groups. Co-researchers also valued the relationships they formed with their fellow students during their SI leader experience and counted those relationships among the most meaningful aspects of their overall experience. However, this theme was most revealed by how highly co-researchers valued the support and assistance they received from other members of the SI team including other SI leaders, SI faculty members, and their SI supervisor.

The second theme of engagement for self and others was informed by the sub-themes of campus connectedness and personal interests. All of the co-researchers of this study viewed their college experience as a meaningful and positive experience. Each testified to a desire to do more than simply go to class and take tests. Each wanted their college experience to be something more memorable, something more purposeful; they wanted to feel as if they belonged to the campus and that they contributed to the larger campus community. Additionally, each co-researcher expressed personal interests for wanting to become an SI leader. Some of these interests were pragmatic while others were more altruistic in nature. Several co-researchers had considered academia as a future career option and sought an experience that would provide them a glimpse into what it might be like to be a teacher or instructor, while others envisioned a position in which they could draw on their previous leadership experience or further enhance their leadership skills. However, a prevailing theme among all of the co-researchers was a desire to help others in a way they felt was the most significant to their peers—helping them achieve academic success.

The third theme of valuing teaching and learning was not unexpected. Without exception, each co-researcher provided testimonies of how learning was an integral part of who they are personally and how important learning was to their future. Furthermore, co-researchers

attested to the value of teaching as part of their own personal and professional learning. This theme was informed by sub-themes that were reflective of how co-researchers valued teaching and learning including their previous experience with peer education, their previous academic success, and their SI leader preparation process. Each co-researcher cited their high school and early college academic success, their previous peer assistance experience, and their participation in the University's SI program as first-year students as motivations for seeking a position as an SI leader. Although co-researchers were emphatic about their previous academic success and their early experience with the SI program. It was clear in the data that they were not fully aware what the SI leader experience entailed when it came to actually facilitating the learning process. In describing how they were able to manage the SI leader experience, they credited some of their success to the preparation they received before and during their experience.

The final theme of developing intrapersonal skills for life, learning, and work permeated the data collected from co-researchers. This theme was informed by sub-themes comprised of on the job training, time management, and personality traits. In some instances, co-researchers felt they brought the intrapersonal skills with them to the SI leader experience, in other cases, they felt they enhanced or developed the skills during the experience. Still, for others, they discovered the skills only after having completed their SI experience. These skills include effective time management habits and realizing the benefits of on the job training. Personality traits co-researchers felt they brought with them to the experience, or developed as a result of the experience, included experience in public speaking and effective communication skills, strong organizational and leadership skills, self-confidence in their ability to perform the tasks of an SI leader, and having a personality that would make them approachable and personal to other students.

Research Questions

In addition to the themes discussed above, the results of this study provided answers to the research questions that were the focus of this study. The central research question asked: *How do students who serve as peer educators at a mid-sized, private research university located in the Midwestern United States describe their experience as SI leaders?*

Guiding question one inquired: *What were participants' expectations for being an SI leader prior to the experience?* Each co-researcher made a conscious decision to become an SI leader based their previous experiences as peer educators, their previous or current academic success, or their experience with the SI program as students in an SI supported course. Additionally, co-researchers expected to have to learn and/or apply skills beyond those needed to succeed solely as a student, and each co-researcher felt they had at least some of the necessary skills and qualities they would need to achieve success in the position including public speaking and communication skills, personality traits that make them amiable to other students, organizational skills to insure efficiency, and confidence in their ability to be effective in the position. Finally, each co-researcher expressed personal interests for wanting to become an SI leader. These interests ranged from aspirations to enter the teaching or professorial professions to more altruistic reasons such as helping others and enhancing leadership ability.

Guiding question two asked: *In what ways were participant expectations met or not met during the SI leader experience?* Without exception, all of the co-researchers admitted that their expectations for their SI leader experience were met—it was "pretty much what they thought it would be." However, each of them also disclosed having encountered aspects of the experience that they did expect; most noted, the inflexibility of the demands the position placed on their time and the need for creating and maintaining relationships with course instructors and students.

Guiding question three asked: *What expected and unexpected outcomes did participants experience during the SI leader experience?* The answer to this question revealed itself in the form of strategies related to the unexpected challenges discussed in the answer to guiding question two. The co-researchers identified three dominant strategies for managing their SI leader experience—a positive relationship with the course professor; developing and utilizing effective time management habits; and PREPARE, PREPARE, PREPARE.

Guiding question four inquired: *How do participants describe the short-lived and enduring influences of their SI leader experience?* Each co-researcher indicated that their SI leader experienced influenced and shaped them in significant and meaningful ways. Among the ways most cited by co-researcher are:

- How to be a better friend
- How to be a better teacher
- Increased levels of self-confidence
- Growth in level of maturity
- Academic growth as a student
- Improved communication/presentation skills
- Improved people skills
- Increased levels of patience and empathy
- Increase in personal responsibility
- Improved time management skills
- How to be a better team player
- Improved critical thinking skills
- A better understanding of how they learn and how others learn

Phenomenological Descriptions of the SI Leader Experience

The final portrayal of the results of this study were the composite textural and structural descriptions of the lived experiences of co-researchers of this study and a description of the essence of the SI leader experience. Moustakas (1994) described these textures as descriptions of the characteristics that comprise the phenomenon, in this case the SI leader experience. The composite textural description of the SI leader experience, or the what experienced by the co-researchers, was summarized as a *student engagement activity with unexpected developmental benefits*. Co-researchers actively sought to engage in the SI program as peer educators, each motivated by his or her own expectations for the experience. All completed their SI leader experience finding that they had developed in ways they did not expect, but in ways that they found rewarding and beneficial.

The composite structural description of the SI leader experience, or the *how* of the experience, was summarized as *personal and professional development through academic relationships*. Although the co-researchers experienced the same phenomenon, they each experienced it in their own unique way and derived their own meaning of the experience. However, data analysis revealed the common thread of relationship woven through the experiences of all co-researchers—relationships with faculty, staff, students, and other SI leaders. Co-researchers attributed many aspects of their experience to the relationships they formed, or in isolated cases did not form, during the experience.

Finally, the essence of the experience for co-researchers who served as SI leaders at a mid-sized, private research university located in the Midwestern United States was synthesized as *transformational and collaborative*. Co-researchers were each transformed in their own unique way—as a learner, as a peer educator, as a colleague, as a friend, as a leader, or as a

person. They saw the necessity and value of forming and nurturing relationships with others to achieve a common goal, a goal to help others succeed.

Discussion

This section places the results of this study in contextual relationship to the empirical and theoretical literature reviewed in Chapter Two. The findings of this study corroborated and extend the literature concerning the SI leader experience and add to the body of research on transition theory and its application in student development theory.

Although much of the literature surrounding students serving as peer educators centered on students serving in other capacities such as peer counselors (Carns et al., 1993), peer advisors (Frisz, 1984), resident assistants (RA; Winston & Buckner, 1984), and campus activities leaders (Yamauchi, 1986), the literature focused on SI leaders revealed that the experience produced benefits for the students who served in the peer educator capacity. Hurley et al. (2003) found that students who served as SI leaders reported that they found their experience to be positive and a good review of material. Similarly, Donelan and Kay (1998), Smuts (2002), and Stout and McDaniel (2006) found SI leaders experienced improved communication and presentation skills and an increase in their own understanding of course material. Additionally, the SI leaders benefitted by getting to know other students, facilitating group activities, helping others learn, and experiencing the learning process from a different perspective. This study corroborated these findings. As Lucas explained about his SI leader experience: "when people ask about my experience with the SI program, I say with complete sincerity that my choice to participate in the SI program was one of the most positively impactful decisions I ever made during my time at [the study site]." Discussing the impact of her SI experience on her own understanding of course material and helping others, Haley added: "I have a much higher command of my subject

material. I enjoyed spending my time helping others in my class." Reflecting the sentiments of all his fellow co-researchers, Liam attested that as a result of his SI leader experience, "my communication and leadership skills have improved immensely, which will definitely benefit me in the future."

Congos and Mack (2005) found that SI leaders valued the positive academic impact on students who attended their sessions and the adulation they received from students as a result of their academic success. This study revealed similar findings. As Heath explained what he valued most about his SI leader experience:

> Helping people. I ran into one of my students yesterday and they gave me a huge hug thanking me because they got an A in the class. I don't so much love the recognition as much as the fact that they think my sessions were the reason they did well. It's good to know what you're doing is actually having an impact.

Similarly, Goodlad and Hirst (1989), Lockie and Van Lanen (2008), Mason-Innes (2015), Smuts (2002), and Stone et al. (2006) reported that students benefitted personally from their SI leader experiences through enhanced relationships with students, faculty, and other SI leaders. Furthermore, they developed a deeper understanding of content, enhanced their own study strategies, developed leadership skills, and gained exposure to, and appreciation of, the teaching profession. In the same way, Latino and Unite (2012) and Wallace (1992) observed that SI leaders performed better academically including enhanced integration of study skills and the transferability of learning to other courses. This study corroborated these conclusions. Explaining how his SI leader experience contributed to his personal development, Peter attested: "[improved] my study skills, it helped me be a better student. It helped me communicate better, deal with different personalities." In describing the benefits of her experience, Wendy

explained: [I] got to form relationships with faculty such as the SI supervisor and my course professor, which helped me feel more connected to the university as a whole." Speaking to the transferability of learning to other course, Whitney described:

> [Being an SI leader] really helped me in my other classes. I won't lie. Like being in Biochemistry while I was teaching Biology SI was so awesome because Biochemistry, like I reviewed everything in Biology almost on time with our class in Biochemistry, so when it came around to it, I only had to learn the Chemistry components of it and not review any of the Biology, and that was amazingly helpful."

Describing the impact of her SI leader experience on her leadership capabilities, Haley explained:

> Being and SI leader has given me an invaluable leadership position. There isn't much else that can compare to this. It has given me not only leadership skills that I have brought to my other groups, as well as personable skills, and confidence.

Much of the literature related to peer educator experiences centered on students who served as peer counselors, peer advisors, resident assistant, and campus activity leaders. However, the literature that did focus on the SI leader experience, whether the data was anecdotal in nature or derived through more rigorous research methods, clearly revealed several common themes for those students who experienced the SI leader phenomenon that were corroborated by the results of this study. While it is reasonable to assume that some students did not ultimately persist in the experience, the literature and the results of this study show that the SI leader experience is a positive experience that provides many opportunities and benefits for students who desire to willingly and enthusiastically participate in this student engagement activity.

Finally, this study added to the body of research on transition theory and its application in student development theory. Using Schlossberg's (1981, 2011) transition theory as a lens through which to view the SI leader experience, this study provided a description of how students move in, through, and out of the SI leader experience (see Figure 1) and showed that students who serve as SI leaders do experience a form of transition as defined by the theory in Evans et al. (2010), Schlossberg (1981, 1989, 2011), and Schlossberg et al. (1989). Furthermore, study results revealed sub-themes that provided a detailed demonstration of each stage of transition and the factors that helped co-researchers cope with the transition from students to peer educators.

Implications

This phenomenological study produced findings that have theoretical, empirical, and practical implications for students and parents, researchers, higher education professionals, higher education administrators engaged in accreditation, and employers of college graduates. The purpose of this section is to discuss these implications and to provide specific recommendations to the stakeholders mentioned.

Theoretical Implications

Results of this study have theoretical implications for researchers of higher education, student experiences, and transitions. Using Schlossberg's (1981, 2011) transition theory as a lens through which to view the SI leader experience, this study provided a description of student experiences as they transition from their roles as college learners to college peer-educators. More specifically, it provided a description of their experiences moving in, moving through, and moving out of the SI leader experience (see Figure 1).

Overall, the findings of this study showed that students who serve as SI leaders do necessarily experience a form of transition as a result of the change in their roles from students to peer educators (Evans et al., 2010; Schlossberg, 1981, 1989, 2011; Schlossberg et al., 1989). The data revealed 12 sub-themes that provided a unique glimpse into each stage of transition and the factors of situation, self, supports and strategies that helped co-researchers cope with the transition from student to peer educator.

Moving in to the SI leader experience (situation and self). The sub-themes of previous academic success, experience with peer education, personal interests, and personal characteristics provided insight into the first stage of the transition process. Moving in to the SI leader experience was an anticipated event for this study's co-researchers. Prompted to apply for an SI leader position either by their previous experience as peer educators, their previous academic success, or their experience with SI as students in an SI supported course, these students made a conscious decision to take on a role that would require them to develop and apply skills above and beyond those needed to succeed solely as a student. They believed themselves to be in an appropriate situation or circumstance to be an effective resource to help their fellow students. Furthermore, each co-researcher felt they had at least some of the necessary skills and qualities that would serve as the foundation for success in the position including public speaking and communication skills, personality traits that make them amiable to other students, organizational skills to insure efficiency, and confidence in their ability to be effective in the position. Finally, each co-researcher expressed personal interests for wanting to become an SI leader. These interests ranged from aspirations to enter the teaching or professorial professions to more altruistic reasons such as helping others and enhancing leadership ability.

Moving through the SI leader experience (supports). The sub-themes of support from the SI team, preparedness, time commitment/management, and experience provided insight into the second stage of the transition process. As expected, co-researchers had to learn new skills and develop sources of support to help them transition to their roles as peer educators. Among the most significant challenges experienced by co-researchers were adjusting to the rigors of planning, preparing, and facilitating SI sessions and effectively managing their time to meet both their own academic responsibilities in addition to their SI duties. Although experience and developing effective time management practices helped overcome these challenges, co-researchers also cited formal and informal SI leader training that focused on session planning, nurturing interpersonal relationships, and the importance of maintaining a positive attitude as key sources of support in helping them navigate the transition process. However, each co-researcher attributed the support they received from their fellow SI leaders, faculty members, and their SI supervisor as the most important sources of support in helping them meet the demands of the SI leader position. These interactions included regular peer observations, peer group discussions, regularly scheduled meetings with course professors and the SI supervisor, and observations conducted by the SI supervisor or other professional staff members.

Moving out of the SI leader experience (strategies). College is certainly a time of growth and development. Exactly how and in which ways students develop during their college experience no doubt varies from student to student. However, co-researchers of this study revealed that the transition from student to peer educator changed them in meaningful ways that has impacted them in their academic and professional situations. Themes revealed to show how the SI leader experience impacted co-researchers beyond their tenure as peer educators and include interpersonal and intrapersonal benefits; greater sense of appreciation for teaching and

new insights into learning and the learning process; and a greater sense of connectedness to their university, faculty, professional staff members, colleagues, fellow peer educators, and peers.

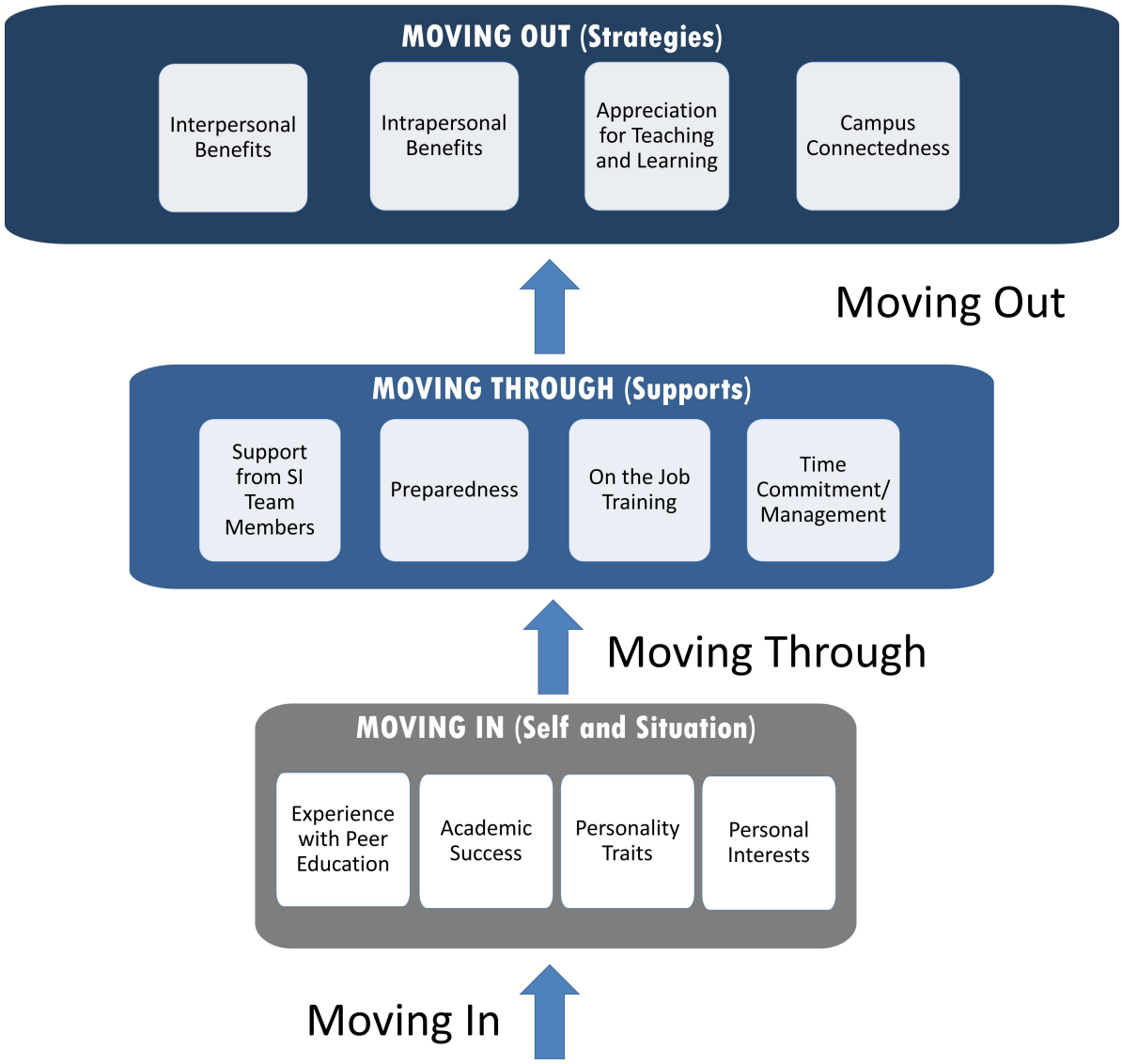

Figure 1. The SI leader transition process. This figure depicts the characteristics of the SI leader transition process as they move in, through, and out of the SI leader experience. Characteristics

in each stage of the process are presented in the context of the four sets of factors, referred to as the 4 S's, that influence how a person copes with transition—situation, self, supports, and strategies.

Empirical Implications

One does not have to look far to see that there continues to be a growing concern about the value and quality of a college degree and the ability of institutions and their graduates to demonstrate learning and competencies beyond grades and diplomas. One way to begin to address these growing concerns is to look at the whole college experience to see what skills and competencies students are developing through student engagement activities outside of the classroom. This study focused on the SI program and the experiences of students who served as peer educators, or SI leaders, responsible for facilitating the program and contributing to the academic success of students who attend their SI sessions. The results of this study on their experiences has empirical implications that are applicable to future students and their parents, higher education professionals and researchers, and potential employers of college graduates.

For future college students and their parents, the results of this study demonstrate an aspect of value of a college experience despite the continually rising costs of attendance (Doyle, 2011; Willie, 2012; Wood, 2011). Although the cost of college will most certainly remain a cost-benefit proposition for students and their parents, the results of this study show that learning is as much a product of what students do outside of the classroom as it is what they do inside the classroom and that opportunities for students to engage in such programs as SI or other similar programs can, and should be, a variable in the cost-benefit decision that future students and their parents will make regarding the value and quality of a college experience.

For higher education professionals, these findings add to the growing literature used to help justify continued dedication of resources to SI and similar programs that not only contribute to the overall learning outcomes for students, but can also contribute positively to institutional image (Henning, 2012; Wawrzynski et al., 2011). Furthermore, two of the core accreditation criteria of the Higher Learning Commission North Central Association of Colleges and Schools (the accrediting body for the institution that served as the research site for this study) are that (1) an institution provides support services to meet the needs of students and (2) the institution is able to demonstrate any claims it makes relating to student educational experiences (Higher Learning Commission, n.d.). This study provides higher education administrators responsible for accreditation activities an effective model for capturing data on learning outcomes derived from student engagement and educational experiences for use in satisfying accreditation requirements. For researchers of higher education and college student experiences, the results of this study add to the body of literature on the nature of transition, specifically among college students, and further reveals how Schlossberg's transition theory can serve as a lens through which to view how college students develop through participation in student engagement activities similar or dissimilar to the SI program.

Finally, for potential employers of college graduates, the results of this study clearly demonstrate ways to identify quality learning and acquired competencies beyond a college diploma or grade transcript (Arum, 2013). For example, the American Management Association (AMA) (2012) argued that:

> U.S. executives say they need a workforce equipped with skills beyond the traditional "three Rs" of reading, writing, and arithmetic if they are to grow their businesses in the 21st century. Today's employees need to think critically, solve problems, innovate,

> collaborate, and communicate more effectively—at every level within the organization. They must excel at the "four Cs": critical thinking, communication, collaboration, and creativity (p. 1).

This study revealed that students who engaged in the SI program as SI leaders developed or enhanced these interpersonal and intrapersonal skills sought by many employers including the ability to communicate effectively to students, peers, faculty and staff; the ability to creatively plan and execute SI session activities; the ability to work and succeed as part of team responsible for collaborating on session planning and SI leader development; and the ability to think critically in managing the logistical and academic challenges of the SI leader position.

Practical Implications

The results of this study provide practical implications for students and parents, higher education professionals, higher education administrators engaged in accreditation, and employers of college graduates. Implications for each of these stakeholders are described in the paragraphs that follow.

The implication for current and future students and their parents is that there is value in a college experience beyond grades and diplomas that is realized through participation in student engagement activities such as SI. Although a college education will continue to be a cost-benefit decision that each student and parent will have to make, the co-researchers of this study attested that they benefitted greatly, and in numerous ways, from their SI leader experience, including learning how to be a more responsible person and student, how to work as part of team, how to put the needs of others above one's own, how to nurture relationships with peers as well as people in authority, how to think critically to solve shared problems, how to effectively communicate information from varying perspectives, and how to relate to others from diverse

backgrounds. These outcomes are not commonly listed in college bulletins or advertised in institutional marketing materials, so students and their parents should take into consideration the availability of such activities when evaluating college options.

The implications for higher education professionals responsible for SI programs are that each student will experience being an SI leader differently, but that each student who serves as an SI leader has the potential to grow and develop their interpersonal and intrapersonal skills and will gain further appreciation for learning and teaching. As such, it is important the SI program administrators provide new SI leaders training and mentoring that is keeping with the guidelines provided by the International Center for SI at the UMKC. Furthermore, this study revealed that SI program administrators are but only one source of training and mentoring for new SI leaders and the students who serve as SI leaders find great value in learning from the fellow peer educators and faculty members. Therefore, it is important for SI program administrators to provide ample opportunities for SI leaders to learn from one another and to interact with course instructors. This can be accomplished through a variety of mediums such as formal SI mentoring programs, informal SI leader and faculty gatherings, or simply including experienced SI leaders and faculty members in the formal training process for new SI leaders.

The implication for higher education administrators responsible for accreditation activities is that results from qualitative studies such as this one can be used to demonstrate the effectiveness and value of programs of services provided to support students. For example, two criteria set by the Higher Learning Commission (n.d.) are to provide support services to meet the needs of students and demonstrate their effectiveness. By using a qualitative research methodology, this study provides an effective model for capturing data on learning outcomes

derived from a student engagement experience that can be used to satisfy this and other accreditation requirements.

Finally, the implications for employers of college graduates is that there are other indicators that can attest to the quality of learning and acquired competencies and skills of college graduates when considering them for employment. By looking more closely at the extracurricular activities of applicants who are recent college graduates, and by seeking references from those higher education professionals who can speak to those activities, employers can gain much insight into the competencies and skillsets of college graduates that may not be listed on a transcript or reflected on a diploma. For example, in the case described by the AMA (2012) that suggested that U. S. executives are seeking employees who possess the ability to think critically, to communicate effectively, to collaborate with others, and to be creative, this study clearly showed how students developed or enhanced these qualities through the SI leader experience.

Delimitations and Limitations

Delimitations are boundaries that I set for this study that limited its scope and applicability. Unlike limitations (discussed below) that arise from the research method and design (Patton, 2002), delimitations result from decisions I made relating to the study site and selection of co-researchers. Site selection was restricted to a single institution in which the SI program is structured and operated in accordance with the University of Missouri-Kansas City model outlined in Hurley and Gilbert (2008). Specifically, SI must (a) be assigned to specific courses; (b) involve students, faculty, an SI supervisor, and SI leaders; (c) include an element of training for SI leaders; (d) contain SI sessions; (e) include activities to enhance understanding of course material; and (f) broaden student study and learning strategies (Hurley & Gilbert, 2008).

Similarly, co-researcher selection was delimited to students who served as SI leaders at the research site. Furthermore, although I expected each student to invariably perceive the SI leader experience differently, it was important to the validity of this study that the training each student received prior to entering the experience contained the basic training elements outlined by McDaniel (2008) including team-building, the fundamentals of pedagogy and the learning process, and instruction on the components of basic session planning. Finally, to increase the chances that co-researchers would have had significant exposure to the phenomenon, co-researchers were delimited to those who served as SI leaders for at least two semesters.

Wiersma (2000) suggested that: "because qualitative research occurs in the natural setting it is extremely difficult to replicate studies (p. 211)." This study is limited in transferability and application because it was limited to one study site situated in the Midwestern United States. Additionally, this study is limited in its results due to delimitations in the study sample. Co-researchers selected to participate in this study were limited to those who had attended training in accordance with UMKC guidelines and who had positive experiences in the program, as reflected by the requirement to have completed a minimum of two semesters in the SI leader position, and did not include co-researchers with less experience who may have had negative experiences. The study sample further limited results in that co-researchers were of either Caucasian or Asian ethnicities and all were in STEM fields. This limitation occurred as a result of potential co-researchers of other ethnicities either being too many years removed from the experience or not in a situation that would allow them to participate in this study. A more diverse study sample would have increased the applicability and transferability of the study results to a broader population.

Recommendations for Future Research

This study focused on the experiences of students who served as SI leaders at a mid-sized private research institution in the Midwestern United Stated. Based on the findings of this study, the following suggestions for future research are proposed:

This study focused on the experiences of students who served as SI leaders at one mid-sized private research institution. Additionally, these students were limited in their demographics. Future research encompassing co-researchers from various ethnicities and various types and categories of study sites, such as smaller and larger public and private institutions as well as institutions focused on the liberal arts and social sciences, could add transferability to similar studies of the SI leader experience.

Second, this study focused on the experiences of SI leaders trained in accordance with guidelines provided by the UMKC. Incorporating co-researchers who experienced other models of SI leader training and preparation could expand the literature on the immediate and long-term outcomes of various SI leader preparation and development programs.

Third, this study utilized co-researchers who had positive experiences in the program, as reflected by the requirement to have completed a minimum of two semesters in the SI leader position, and did not include co-researchers with less experience who may have had negative experiences. Additional research that incorporates co-researchers who did not persist in the SI leader experience could reveal important insight into how best to prepare and develop future SI leaders.

Fourth, the SI program is comprised of three key stakeholders—SI leaders, students who attend SI sessions, and faculty and staff who train, mentor, and support SI leaders. The results of this study on the SI leader experience show how important relationships with faculty and staff

are to students who serve as SI leaders—to their effectiveness as peer educators as well as the overall quality of their experience. Additional studies that focus on how faculty and staff view and experience the SI program can help gain faculty and staff support for the program as well as reveal strategies for ensuring positive working relationships between all SI stakeholders.

Finally, this study revealed that SI leaders do learn and develop skills throughout their SI leader experience that they use in their own undergraduate experience and into their post baccalaureate or career endeavors. Future research focused on this aspect of the SI leader experience could reveal more specific competencies that can be learned or developed through this unique peer educator experience.

Summary

The purpose of this study was to describe the lived experiences of students who serve as SI leaders at a private research university in the Midwestern United States. A transcendental phenomenological research methodology was utilized to allow the voices of the students to be heard clearly in the study findings. Through their words, co-researchers afforded me, and now you as the reader, an opportunity to more fully understand the uniqueness and complexities of their shared experience. Woven throughout the themes that emerged from this study are two aspects of the SI leader experience that are especially important to professional staff members who administer their institution's SI program, students and their parents, and potential employers of college graduates.

The first significant finding of the SI leader experience was the importance of relationships to SI leaders throughout their peer educator experience—from their earliest experiences with the SI program until their final SI event. Relationships are evidenced in the reasons students seek an SI leader experience, the reasons they persist in the experience, and a

facet of the experience they value beyond the experience itself. In cases where SI leaders felt they had very supportive relationships, they found great value and personal satisfaction in them. In cases where SI leaders felt they did not always have supportive relationships, they expressed disappointment in not having them and believed their time as an SI leader would have been more fulfilling and rewarding had more supportive relationships existed.

For SI program administrators, it is essential to provide ample opportunities for SI leaders to learn from one another. Although they value formal training activities, they find more value and benefit in learning from the experiences of one another. Furthermore, it is important to familiarize faculty members with the fundamental concepts of SI and to stress the importance of forming supportive relationships with their SI leaders to help them provide the highest quality SI sessions possible for students in their course. To help facilitate these types of relationships, SI program administrators should create opportunities for faculty, staff, and SI leaders to interact with one another such as formal SI mentoring programs, informal SI leader/faculty gatherings, regularly-scheduled meetings comprised of individual SI leaders and their respective course instructors, or including experienced SI leaders and faculty members in the formal training process for new SI leaders.

The second significant finding was the development of intrapersonal skills during the SI leader experience. When individuals self-select to engage in an activity or experience, it is understandable that they do so believing that they bring certain skillsets or competencies with them, even if it is just a willingness to learn something new. However, during engagement activities, such as the SI leader experience, students are likely to enhance those skillsets or competencies while developing new ones. In this study, the skills and competencies developed by co-researchers included the development of effective time management habits, the ability to

solve problems, the ability to create and nurture personal and professional relationships, the realization of the benefits of on the job training and collaboration, the ability to communicate effectively, the development of strong organizational and leadership skills, the ability to think critically, and increased levels of self-confidence.

For future college students and their parents, the results of this study show that learning is as much a product of what students do outside of the classroom as it is what they do inside the classroom. Students will benefit far more from a college experience if they participate in the opportunities afforded by many college institutions, especially programs that offer students opportunities to engage with other students, professional staff, and members of the faculty. These types of engagement activities can help students develop in ways that go beyond content knowledge and discipline—specific skillsets that can make them more desirable to potential employers.

Finally, for potential employers of college graduates, it is important to recognize that there are other indicators that can attest to the quality of learning and acquired competencies and skills of college graduates when considering them for employment. By looking more closely at the extracurricular activities of college graduates, and by seeking references from those higher education professionals who can speak to those activities, great insight can be gained into the competencies and skillsets of college graduates that may not otherwise be clearly evidenced on a resume or found on a transcript or diploma.

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APPENDIX A: LU IRB APPROVAL LETTER

LIBERTY UNIVERSITY.
INSTITUTIONAL REVIEW BOARD

January 4, 2016

James L. Eller
IRB Approval 2286.010416: Investigating the Supplemental Instruction Leader Experience: A Phenomenological Study of Undergraduate Peer Educators

Dear James,

We are pleased to inform you that your study has been approved by the Liberty IRB. This approval is extended to you for one year from the date provided above with your protocol number. If data collection proceeds past one year, or if you make changes in the methodology as it pertains to human subjects, you must submit an appropriate update form to the IRB. The forms for these cases were attached to your approval email.

Thank you for your cooperation with the IRB, and we wish you well with your research project.

[redacted]
[redacted]
[redacted]
Administrative Chair of Institutional Research
The Graduate School

LIBERTY
UNIVERSITY
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APPENDIX B: STUDY SITE IRB APPROVAL LETTER

NOTICE OF APPROVAL

[redacted] IRB Protocol Number:	**IRB-2015-1350**
Protocol Title:	***Investigating the Supplemental Instruction Leader Experience: A Phenomenological Study of Undergraduate Peer Educators***
Responsible Investigator (RI):	[redacted]
Co-Investigator (CI):	**James Eller**
RI Department:	[redacted] **University IBC and SBER IRB - UGEN - University General**
Type of Review:	**Expedited**
Risk Level:	**Minimal**
Vulnerable Population(s):	**None**
Approval Date:	**12/28/2015**
CONTINUING REVIEW DEADLINE:	**12/13/2016**
EXPIRATION DATE:	**12/27/2016**

The [redacted] Institutional Review Board (IRB) has approved the above new protocol through the **EXPEDITED** review process.

When conducting Human Subjects' Research, your responsibilities include the following:

1. 1. Report all adverse events and unanticipated problems involving human subjects to the IRB Office, located in the Office of Research Administration (ORA), within three (3) business days of your knowledge of the occurrence.
2. 2. Provide the IRB with a complete Continuing Review form (available in our electronic application system at [redacted], or from the ORA) by the continuing review deadline noted above, and when the study is to be terminated.
3. 3. Submit all proposed changes to the protocol to the IRB and wait for IRB approval before implementing any protocol change or modification.
4. 4. Keep all research data and original consent documents in your possession for at least three (3) years after the study is terminated.
5. 5. Note that completely de-identified data can be kept and used for research indefinitely. The IRB is primarily concerned about identifiers/identifiable data. If you want to terminate your study, identifiers/identifiable data must be destroyed. This includes paper or electronic master lists, contact lists, codes/codebooks, transcripts containing identifiers and video and audio recordings.
6. 6. If applicable, please use the most current IRB-approved consent forms. Feel free to use copies of these forms as long as they are identical to what was originally IRB approved. If you wish to change the forms or any other part of the study, you must submit an addendum request/protocol modification with revised copy(ies) of the relevant document(s) and wait for IRB approval before a modification can be implemented.
7. 7. ***Discontinue all work pertaining to this protocol if a continuing review approval is NOT finalized by the expiration date noted above.*** No further work on this protocol is allowable until the proper continuing review materials or required revisions are approved by the IRB.
    a. a. Please note that, if the continuing review materials or required revisions are not received by the expiration date, the RI and this study would be automatically placed on Administrative Hold for 30 days. This means that the RI loses their IRB privileges and research from this study must cease.
    b. b. If after 30 days, the [redacted] IRB still does not have the protocol for processing, this protocol will be administratively terminated and your IRB privileges will be revoked for all your protocols.

Thank you for your attention to this matter. Please contact the IRB office at [redacted] if we can be of further assistance.

APPENDIX C: E-MAIL INVITATION TO POTENTIAL CO-RESEARCHERS

Dear former SI Leader,

As a doctoral candidate in the School of Education at Liberty University, I am conducting research as part of the requirements for the Doctor of Education degree. The purpose of my research is to describe the experiences of students who served as Supplemental Instruction (SI) leaders and I am writing to invite you to participate in my study.

You were selected as a possible participant because you served as an SI leader at the study site, Case Western Reserve University, for a period equal to, or greater than, two academic semesters. If you choose to participate in this study, you would be requested to do the following tasks:

- Complete and submit a brief questionnaire related to your educational and SI leader experience.
- Participate in a one-hour interview with the researcher. The interview will take place in a mutually agreed upon location either face-to-face or using an online format. The interview will be audio and/or video recorded.
- Permit access to your SI leader records including your initial application and documents completed during your SI leader experience as a source of data for the study.
- Participate in a focus group with the researcher and other study participants. The focus group will take place in either a face-to-face format or a combination of face-to-face and online formats depending on the availability and geographical location of study participants. The focus group will be audio and/or video recorded.
- Participate in the member-checking process to review the findings and conclusions reached by the researcher and to provide feedback on the accuracy of the information you provided.

To participate in this study, click on the link provided (link to online consent form—appendix E) and complete and submit the required consent form. If you have any questions before signing the form, please contact me at jeller2@liberty.edu or (440) 319-1794.

Sincerely,

James Eller
Doctoral Candidate

APPENDIX D: INTRODUCTION TO CO-RESEARCHER CONSENT

Dear former SI Leader,

Thank you for your interest in my dissertation research on the experience of SI leaders. I value the unique contribution that you can make to my study and I am excited about the possibility of your participation in it as a co-researcher (study participant). I want to take a minute to reiterate some information we have already discussed and to secure your signature on the required informed consent form.

The research model I am using is a qualitative one through which I am seeking a thorough and comprehensive description of your experience as an SI leader—from the moment you first considered pursuing your SI position to the present. In this way I hope to answer my research question: "What is the experience of students who serve as SI leaders?"

Through your participation as a co-researcher, I hope to understand the essence of the SI leader experience as it revealed itself in your experience. You will be asked to recall specific motivations, episodes, situations, and events that you experienced before, during, an after your time as an SI leader. I am seeking vivid, accurate, and comprehensive portrayals of what these experiences were like for you: your thoughts, feelings, and behaviors, as well as situations, events, places, and people connected with your experience.

I truly value your participation and thank you for the commitment of your time, energy, and effort. If you have any further questions before signing the informed consent form, I can be reached at jeller2@liberty.edu or (440) 319-1794.

Sincerely,

James Eller
Doctoral Candidate

APPENDIX E: INFORMED CONSENT FORM

CONSENT FORM

The Supplemental Instruction (SI) Leader Experience
James L. Eller, principal investigator
Liberty University
School of Education

You are invited to be in a research study of the Supplemental Instruction (SI) leader experience. You were selected as a possible participant because you served as an SI leader at the research site for a period equal to, or greater than, two academic semesters. Please read this form and ask any questions you may have before agreeing to be in the study.

James L. Eller, a doctoral candidate in the School of Education at Liberty University is conducting this study.

Background Information:

The purpose of this study is to describe the experiences of undergraduate students who serve as SI leaders at a mid-sized, private research university in the Midwestern United States.

Procedures:

If you agree to be in this study, you are requested to do the following tasks:

- Complete and submit a brief questionnaire related to your educational and SI leader experience.
- Participate in a one-hour interview with the researcher. The interview will take place in a mutually agreed upon location either face-to-face or using an online format. The interview will be audio and/or video recorded.
- Permit access to your SI leader records including your initial application and documents completed during your SI leader experience as a source of data for the study.
- Participate in a focus group with the researcher and other study participants. The focus group will take place in either a face-to-face format or a combination of face-to-face and online formats depending on the availability and geographical location of study participants. The focus group will be audio and/or video recorded.
- Participate in the member-checking process to review the findings and conclusions reached by the researcher and to provide feedback on the accuracy of the information you provided.

Risks and Benefits of being in the Study:

The risks involved in this study are no more than the participant would encounter in everyday life.

The benefits to participation are as follows:

- Helping describe benefits of a college education beyond grades and diplomas
- Providing a description of student experiences as peer-educators
- Participating in a qualitative research study

Additionally, findings from this study may be published and potentially prove beneficial to higher education administrators, potential college students and their parents, and perspective employers of college graduates.

Compensation:

My most heartfelt appreciation. There is no other compensation for participating in this study.

Confidentiality:

Research records, recordings, and associated transcripts will be stored securely in password-protected data files. Written and hard copy records will be kept in a secure file cabinet until such time that they are converted to electronic form and stored on a password-protected computer. All electronic files will be backed up using an online backup service. Access to data will be limited to the researcher and will not be used for purposes outside of this study without additional consent of research participants. Furthermore, pseudonyms will be assigned to all participants and used in all written or electronic records and reports to protect participant identity. However, because focus groups require the involvement of other participants, security of identities and confidentiality of information provided during the focus group cannot be assured.

Voluntary Nature of the Study:

Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with Liberty University, Case Western Reserve University, or the principle investigator of this study. If you decide to participate, you are free to not answer any question or withdraw from the study at any time without affecting those relationships. Should you decide to withdraw from the study, any information or materials you provided will be excluded from data collection, analysis, and study findings.

Contacts and Questions:

The researcher conducting this study is James Eller. You may ask any questions you have now about this study via e-mail to jeller2@liberty.edu, or [redacted], or by calling (440) 319-1794. If you have questions later, you are encouraged to contact the researcher at the same e-mail address or telephone number. This study is being conducted under the supervision of Dr. Fred Milacci, fmilacci@liberty.edu, (434) 592-6297.

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, **you are encouraged** to contact the Institutional Review Board, 1971 University Blvd, Suite 1837, Lynchburg, VA 24515 or email at irb@liberty.edu.

Please notify the researcher if you would like a copy of this information to keep for your records.

Statement of Consent:

I have read and understood the above information. I have asked questions and have received answers. I consent to participate in the study.

(NOTE: DO NOT AGREE TO PARTICIPATE UNLESS IRB APPROVAL INFORMATION WITH CURRENT DATES HAS BEEN ADDED TO THIS DOCUMENT.)

☐ The researcher has my permission to audio-record and/or video-record me as part of my participation in this study.

Signature: _____ Date: _____

Signature of Investigator: _____Date: _____

APPENDIX F: CONSENT FOR RELEASE OF EDUCATIONAL RECORDS

Student Consent Form for Release of Educational Record Information

Instructions for Faculty and Staff: This form may be used when a student requests you, as a school official, to disclose information from a student's education record to a person or entity outside of [redacted], such as writing a letter of recommendation. A signed Student Consent Form is necessary to document written consent from the student. Student consent should include: (1) a description of the information to be disclosed, (2) to whom the information will be disclosed, and (3) the student's signature and date.

If information to be disclosed contains non-directory information;
• Student's written consent is recommended for disclosures sent to other educational institutions in which the student seeks to enroll, including professional school admission services.
• Student's written consent is required for disclosures sent to an employer or for any other purpose, such as general letters of recommendation.

Examples of non-directory information include: disciplinary status, GPA, Student ID number or Social Security number, grades/exam scores and standardized test scores.

Instructions for Students: Complete, sign, and return this form to the faculty or staff member.

I give my permission to [redacted] to disclose information from my education record to all persons or entities (or classes of persons or entities) listed here: James Eller.

I give my permission for [redacted] to include the following non-directory information to James Eller for the purpose of conducting research (x all that apply):

o Any information on my [redacted] transcript including my grades and courses taken.
o Any information on the attached curriculum vitae or résumé.
o Any information included in my attached personal statement.
o Any educational and other records to which the recommender has (or has had) access in making academic and/or employee evaluations and decisions, (including but not limited to examinations, essays, terms papers, teaching evaluations, graduate committee evaluations, and so forth.)
X Other (please specify): Initial SI Leader Application
Formative SI Leader Assessments completed during SI leader experience
Summative SI Leader Assessment completed during SI leader experience

I hereby
o Waive
o Do Not Waive my right to review this disclosure of information and/or recommendation letter or to know the contents of any oral communication .

Student's Name (please print) _____
Student ID: _____
(Optional) Student's Phone: _____
Student's Email: _____
Student's Signature: _____
Date: _____

APPENDIX G: QUESTIONNAIRE

The purpose of this study is to investigate how students who serve as peer educators at a mid-sized, private research university located in the Midwestern United States describe their experience as SI leaders. This questionnaire is intended to capture demographic information, confirm your completion of SI leader training, assess your perceived level of ability to reflect on and discuss your SI leader experience, and to record your overall reflections and perceptions of your SI experience.

1. Name:

2. Gender:

2. Current age:

3. Age or age range during your SI leader experience (e.g. 20-22, or 20):

4. Race/Ethnicity:

5. Highest degree earned or expected to earn (if still a student):

6. Major(s):

7. Current profession/Employment position:

8. Prior to beginning your SI leader experience, did you attend and complete a structured SI leader training? (yes/no)

9. Did you attend follow-on training during your first SI semester either through **a credit-bearing course** or as part of a **regularly scheduled follow-on training** meetings? If so, please indicate which one you attended.

Use the following scale to respond to questions 10-11.

1 = strongly disagree 2 = disagree 3 = undecided 4 = agree 5 = strongly agree

10. I am confident that I can recall details about my SI leader experience including the events that led to my interest in being an SI leader and events that occurred during my SI leader experience.

11. I am confident in my ability to reflect on and discuss my SI leader experiences.

12. Reflect on your undergraduate career and describe your experience with SI before, during, and after your tenure as an SI leader. How, if at all, did it influence you as a person, as a student, and as a learner? How, if at all, has your SI leader experience contributed to or hindered your

learning or your personal/professional life? Please describe how your SI experiences were positive or negative.

APPENDIX H: STANDARDIZED INTERVIEW QUESTIONS

Standardized Open-Ended Interview Questions

Central Research Question

How do students who serve as peer educators at a mid-sized, private research university located in the Midwestern United States describe their experience as SI leaders?

Opening Questions

1. Please tell me a little about yourself – where you grew up, your family, and your pursuits since completing your undergraduate experience.
2. Tell me about your high school experience. Academics, extracurricular activities, memorable moments in school.
3. During your college search, what were you looking for in a college experience?
4. Why did you choose to attend your particular institution?
5. What excited you or concerned you about attending college?
6. How would you summarize your college experience?

Questions Related to Pre-SI Leader Experiences

7. What was your immediate thought or feeling when you were invited to participate in this study?
8. Please describe your SI experience prior to applying for a position as an SI leader. What was your initial attitude about the program in general?
9. What were your thoughts about your SI leaders? How did you see them and their roles as SI leaders?
10. Describe the circumstance surrounding your decision to apply for a position as an SI leader. Were the influences positive? Negative?

a. (i. a.) What were your initial thoughts or feelings when you were approached or encouraged to apply to be an SI leader?

11. Please describe how you imagined yourself as an SI leader. What expectations did you have for the experience? What qualities or skills did you feel you had to be successful in the role?

Questions Related to SI Leader Experience

12. Please describe how you felt when you were offered a position as an SI leader.
    b. Did you have any immediate concerns or fears about serving in this position? If so, how did you overcome or address these concerns or fears?
13. Did you experience any challenges during your SI leader experience? If so, describe them.
14. What helped you succeed in your position as an SI leader? (Or to what do you attribute your lack of success as an SI leader if you believe you were not successful in the position?)
15. How do you feel OTHERS benefitted (or did not benefit) from your time as an SI leader? Faculty? Staff? Students? Other SI leaders? Friends?
16. How do you feel YOU benefitted from your time as an SI leader working with faculty, staff, students, and other SI leaders?

Questions Related to Post SI Leader Experience

17. Please describe how you view your SI leader experience. Was it positive? In what ways? Was it negative? In what ways?
18. What skills, if any, do you feel you developed or enhanced as a result of your SI fr4experience? How do these skills influence you in your current situation, if at all?

19. Would you recommend other students to pursue a position as an SI leader? Why?

    a. What advice or suggestions would you give to students considering an SI leader position?

20. What was your most memorable moment as an SI leader?

21. Is there anything else related to your SI experience that you would like to add that we have not already discussed?

22. If needed, would it be okay if we did a follow up or clarifying interview in-person, or via e-mail or telephone?

APPENDIX I: STANDARDIZED FOCUS GROUP QUESTIONS

Standardized Open-Ended Focus Group Questions

1. What were the factors or your primary motivations for becoming an SI leader?
2. What were the challenging aspects of your SI leader experience?
3. What do you consider to be the most rewarding aspects of your SI leader experience?
4. How has what you learned through your SI leader experience influenced you as a student or in your current work/life situation?
5. Based on your SI experience, what advice or suggestions would you give a student about SI? (These suggestions can be aimed at students who attend or do not attend SI, or students who desire to become SI leaders. Suggestions can also be specific to pre or post SI experience or during SI experience.)

APPENDIX J: SI LEADER APPLICATION

Name:
Network ID:
Major:
Class Standing:
GPA:
Are you eligible to earn work-study?
Phone:
Email:
Current Address:

Position of Interest: SI Leader

Essay Questions

For which course(s) would you like to apply to be an SI Leader? (You must have earned a grade of "A" in the course.)

What do you expect to obtain, learn, or achieve as an SI leader?

What resources, skills, or support do you expect to need as an SI leader?

What challenges do you expect to encounter as an SI leader?

Beyond your courses, what other commitments do you anticipate having during the semester you would SI? (e.g., jobs, research, campus organizations, etc.)

APPENDIX K: SI LEADER FORMATIVE ASSESSMENT

SI Formative Assessment #1
Please e-mail a copy of this assessment to the course professor

Name _____ Course _____

1. How did your first session(s) go? What went well? What didn't? What did you do differently in your subsequent sessions?

2. Summarize the communication you have had with your course professor so far. Has it been helpful in planning and executing your SI sessions?

3. What is the general pulse of the students in your course? How are they feeling about the course? What is their attitude toward your sessions?

4. Have you given students an opportunity to provide feedback by completing a session evaluation? If so, how many times? If not, why? (SI leaders will be asked to provide specific student comments on SI Formative Assessment #2)

5. What portion of SI leader training has been the most useful in planning and conducting your sessions? What topic(s) should have been included in training that were not?

6. Thinking about mid-term exams, what are your (or your team's) plans for your mid-term exam review session? What challenges do you expect and how do you plan to overcome them?

7. During your sessions, what course material has been the most challenging for students?

8. What can the SI supervisor or course professor do to assist you in your role as an SI leader or in your sessions?

APPENDIX L: SI LEADER SUMMATIVE ASSESSMENT

SI SUMMATIVE ASSESSMENT

Supplemental Instruction (SI)

Instructions: *For this assessment to be effective, you must be as candid as possible. Be sure to submit this report prior to your end-of-semester meeting. Thank you.*

SI Leader Name: _____ Date Completed: _____

1. Course name and number: _____. Do you feel we should continue to support this course with Supplemental Instruction?

2. Training to be an SI Leader consisted of pre-semester training, EDUC 200 for new SI leaders, leader meetings throughout the semester, and individual observations and conversations with the SI Supervisor. Do you feel you have been adequately trained to be an SI leader? If yes, what were the most beneficial aspects of training? If no, please explain your answer and include changes you would like to see for future training.

3. Did the SI supervisor provide you with adequate feedback regarding your performance? Please explain.

4. Do you feel you received too much or too little supervision (spot checks, observations, etc.)?

5. What additional support would have been helpful for you in your role as an SI leader?

6. If you were the SI supervisor, what changes, if any, would you make to the program?

7. Did you find observing your peers beneficial? Did you find their observations of you helpful? Why or why not?

8. What was the average attendance at your weekly sessions? Did you have higher attendance for special reviews and/or after making an SI announcement?

9. Relay some of the comments your students have made regarding their attendance. Why do you think some students attend SI and others do not? What ways, if any, could you increase attendance at your sessions?

10. Did you meet with the course professor on a weekly basis? On average, how long were these meetings? Briefly note what you and the professor discussed at these meetings:

11. What could the SI supervisor or course professor have done to assist you in your role as an SI leader or in your sessions?

12. What is the *most* rewarding aspect of being an SI Leader?

13. What is the *least* rewarding aspect of being an SI Leader?

14. What three (3) suggestions would you give to future SI Leaders?
    a.
    b.
    c.

15. What has being an SI leader meant to you? How has it contributed to your experience at the institution and with the department? How do you think it will benefit you in the future? How has SI helped you develop as a student, if at all?

16. How have you developed as an SI leader? If you would like to return next term, describe two goals you have for yourself and for your SI sessions? Please be very specific.

17. If you completed EDUC 200 this semester, revisit the course syllabus and briefly discuss how you have successfully achieved at least three of the course objectives.

APPENDIX M: THANK YOU E-MAIL AND MEMBER-CHECK REQUEST

Dear Co-Researcher,

Thank you for meeting with me in an extended interview and sharing your SI leader experience. I appreciate your willingness to share your unique and personal thoughts, feelings, events, and situations.

I have attached a transcript of your interview and ask that you please review the entire document to be sure that your interview has fully captured your experience as an SI leader. After reviewing the transcript, you may realize that an important element was overlooked or omitted. Using the Track Changes feature of Microsoft Word, please feel free to add comments that would further elaborate or clarify your experiences, but please do not edit the transcript for grammatical corrections; the way you told your story is critical to the study. Or, if you would prefer, you can print and edit the transcript and return it to me via mail or as an attachment to an e-mail, or we can arrange to meet again to record your additions or corrections.

When you have reviewed the verbatim transcript and have had an opportunity to make changes and additions, please return the transcript via e-mail to jeller2@liberty.edu or via mail to James Eller, 1794 Roxbury Avenue, Geneva, OH 44041.

I have greatly valued your participation in this research study and your willingness to share your experiences. I look forward to your participation in our focus group. If you have any questions or concerns, today or in the future, please do not hesitate to contact me.

Sincerely,

James Eller
Doctoral Candidate

APPENDIX N: AUDIT TRAIL

Audit Trail

Date	Task	Notes
August 10, 2015	Successfully defended proposal.	Began IRB application process at study site.
August 11, 2015	Began reflexive journaling to bracket personal experiences and biases from study.	The process of Epoche.
December 28, 2015	Received IRB approval from study site.	Required assignment of Responsible Investigator to act as agent of institution.
January 4, 2016	Received IRB approval from LU.	Began recruiting study participants to serve as co-researchers.
January 12, 2016	Piloted study questionnaire.	Received helpful feedback on clarity and effectiveness of instrument to capture data.
Janaury 14, 2016	Piloted interview questions.	Received helpful feedback on clarity and effectiveness of questions. Gained practice conducting interviews.
January 20, 2016	Sent 20 e-mail invitations for potential participants.	Used purposeful criterion, purposeful intensity, and maximum variation sampling to detemine invitees.
January 21, 2016	Began receiving completed questionnaire and consent forms.	Participants were sent Record Release Froms to grant access to student archival records.
January 23, 2016	Selected NVivo for data analysis software program.	Downloaded for free from study site software center.
February 9, 2016	Started conducting interviews.	Interviews being conducted face-to-face and online using Skype. Completed interviews being transcribed using transcription service.

Date	Task	Notes
February 10, 2016	Started compiling archival student records.	Upon receipt of record release form from participant.
February 22, 2016	Started moving data to Nvivo.	Looking for online and onground resources for effectively utilizing QDA software.
February 26, 2016	Started data analysis/coding	Organized data by participant and began process by identifying horizons (significant statements).
April 3, 2016	Held first of two focus groups	5 study participants attended. A second focus group will be needed for out of town participants.
April 11, 2016	Held second of two focus groups	Conducted online using Skype.
April 25, 2016	Completed data analysis	Four themes and 12 sub-themes identified.
April 25, 2016 - May 5, 2016	Revising chapters 1-3	Updated as necessary to accurately reflect study procedures.
May 5, 2016 - July 2016	Draft chapters 4-5	Submit to committee for review
Aug. 11, 2016 - Sept. 2016	Edits to chapters 1-5	Incorporated changes and suggested provided by committee members

APPENDIX O: REFLEXIVE JOURNAL

Reflexive Journal

February 8, 2016

Received a few record release forms and completed questionnaires. Data is starting to pile and become a little overwhelming. Many of the formative and summative assessments I am organizing are very familiar to me and I am beginning to recall some of the recurring themes I discovered when I read them initially. However, I am making every effort to suppress those recollections in order to analyze them from a fresh perspective. Additionally, although I have reviewed the phenomenological reduction process articulated by Moustakas, I am still feeling overwhelmed with how best to analyze such a large amount of data. My current plan is to continue to review the process and my research questions in order to keep my focus, all the while being vigilant to hearing participant experiences.

February 9, 2016

Conducted first interview today with Lucas. Prior to the interview I reviewed my interview questions and prepared myself mentally to not drive the interview, but to let Lucas expound on his experience as much as possible. Originally scheduled for an hour, the interview lasted 80 minutes. However, Lucas' experience is the most extensive of all invited participants and I expected him to have much to say about his experience.

Lucas happen to ask if I contacted another previous SI leader, to which, I answered that I had, but that I had not received a reply from her. He said he would contact her for me and invite her to participate—a great example of snowball sampling. I received word from the other former SI leader and she was very excited about the possibility of participating. She will complete the questionnaire as soon as possible.

February 15, 2016

Conducted the second interview. I feel more comfortable asking interview and follow up questions. My focus is on keeping my tone, body language, and follow up questions neutral and non-assumptive in order to create an environment where the participant is free to be as authentic as possible in describing their SI experiences.

APPENDIX P: EXAMPLES OF CODED TRANSCRIPTS USING NVIVO