

**An Examination of Undergraduate Student Employees' Learning and Holistic
Development**

by

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Abstract

As higher education institutions continue to employ students to carry out operational functions and supplement professional staff, they should question how the on-campus employment experience is adding value to students' holistic development and education (Peck et al., 2015). The purpose of this study was to identify student employees' holistic learning and self-leadership based upon their type of employment, as well as explore whether a relationship existed between developmental learning outcomes and self-leadership among this population of college students.

Participants were collegiate students engaged in on-campus, part-time employment while working to attain a bachelor's degree, and their employment type was the job assignment or learning context in which they experienced campus employment. This study used a demographic questionnaire and two instruments for data collection. The Student Employee Outcomes Survey (SEOS; Athas et al., 2013) determined participants' co-curricular learning and development resulting from their employment role, while the Revised Self-Leadership Questionnaire (RLSQ; Houghton & Neck, 2002) determined leadership behaviors. The results of this study yielded a significant, negative association between learning and self-leadership. However, there were no significant differences in learning or leadership by employment type. This information contributed to the literature and supports a better understanding of student employment and its impact on students' learning and leadership. Limitations and implications for practice were also discussed.

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Table of Contents

Abstract.....	2
Acknowledgments.....	3
List of Tables	6
List of Abbreviations	7
Chapter 1 (Introduction)	8
Statement of the Problem.....	12
Purpose of the Study.....	13
Significance of the Study.....	15
Limitations	17
Assumptions.....	18
Definitions.....	18
Organization of the Study.....	19
Chapter 2 (Literature Review)	20
Purpose of the Study.....	21
Student Employment.....	21
Learning and Development.....	24
Leadership.....	34
Learning and Leadership.....	43
Summary.....	46
Chapter 3 (Methods)	49
Sample.....	50

Materials	51
Data Collection	56
Data Analysis	56
Summary	59
Chapter 4 (Results)	61
Participant Demographics	61
Research Question 1	64
Research Question 2	67
Research Question 3	69
Summary	71
Chapter 5 (Conclusions and Implications).....	73
Employment Type and Learning	74
Employment Type and Leadership	77
Learning and Leadership.....	78
Limitations and Future Research	79
Conclusion and Recommendations for Practice	84
References	87
Appendix 1 (IRB Exempt Form)	100
Appendix 2 (Email Invitation for Online Survey)	109
Appendix 3 (Information Letter)	111
Appendix 4 (Survey).....	114
Appendix 5 (CITI Certification).....	134

List of Tables

Table 1 (Student Employee Outcomes Survey Developmental Categories and Constructs)	54
Table 2 (Revised Self-Leadership Questionnaire Categories and Subscales)	56
Table 3 (Independent and Dependent Variables for Research Questions 1 and 2)	57
Table 4 (Descriptive Statistics of Participant Age).....	62
Table 5 (Age by Frequency and Percentage of Sample).....	62
Table 6 (Employment Type by Frequency and Percentage of Sample)	63
Table 7 (Demographic Characteristics of Participants by Employment Type)	64
Table 8 (SEOS Mean Scores)	65
Table 9 (SEOS Descriptive Statistics by Dependent Variable and Employment Type)	65
Table 10 (RSLQ Descriptive Statistics by Dependent Variable).....	67
Table 11 (RLSQ Descriptive Statistics by Dependent Variable and Employment Type).....	68
Table 12 (Canonical Correlations and Eigenvalues for Each Function).....	70
Table 13 (Standardized Canonical Coefficients and Zero-Order Correlations for Predictor and Criterion Variables for Interpreted Canonical Function (Function 1)).....	71

List of Abbreviations

ACE	American Council on Education
ACPA	The American College Personnel Association
CAS	The Council for the Advancement of Standards in Higher Education
CCA	Canonical Correlation Analysis
HERI	Higher Education Research Institute
IPEDS	Integrated Postsecondary Education Data System
MANOVA	Multivariate Analysis of Variance
MSL	Multi-Institutional Study of Leadership
NACE	National Association of College and Employers
NASPA	The National Association of Student Personnel Administrators
NSEA	National Student Employment Association
OIR	Office of Institutional Research
PCA	Principle Component Analysis
RLSQ	Revised Self-Leadership Questionnaire
SEOS	Student Employee Outcomes Survey
SLPI	Student Leader Practices Inventory
UNCG	The University of North Carolina at Greensboro

Chapter 1

Introduction

The transformation of the workforce has become more evident as innovative technologies, globalization, and economical variations modify industry demands (Hansman & Mott, 2010). As the workforce has changed, so have the participants, and thus a more diverse group of laborers have engaged in employment. Race and generational gaps solidify workforce diversity; however, there are also less evident attributes which impact industries such as “the capacity to learn new skills and adapt to new roles and work situations” (Hansman & Mott, 2010, p. 20). With the growing popularity of workforce development programs, the nation is attempting to instill intentional learning opportunities to better prepare laborers and ensure a proficient workforce. For example, the United States Department of Labor’s Employment and Training Administration (n.d.) division is organized to further more effectual operations of the nation’s labor market by delivering beneficial workplace training, among other services, chiefly completed through state and local labor force systems.

Moreover, for individuals to remain employable, workplace adaptability and willingness to learn is more critical than ever before (Hansman & Mott, 2010). Learning is known to be a foundational element of effective leadership (Brown & Posner, 2001). Chandra and Priyono (2015) shared that leadership within the workplace is a predictor of performance. Subsequently, in an effort to create a thriving workforce, employers should gauge if laborers can learn to lead (Antonacopoulou & Bento, 2004). A diverse group of laborers with embedded interest in learning and acquiring leadership is undergraduate students engaged in employment on institutional campuses across the United States. Undergraduate students are not only preparing to enter the workforce. Rather many students already pursue employment as a supplementary

activity to their educational studies. The 2011 U.S. Census Bureau's American Community Survey reported that among the 19.7 million undergraduate students, 72% of these students were employed at least part-time as a component of their undergraduate experience (Davis, 2012).

Campus employment supports students both financially and personally. Students enter college for a number of reasons, among them is the desire to "extend themselves" (Horn & Moesta, 2020). Students looking to embed self-development into their collegiate experience often seek out learning opportunities and learning contexts, such as employment, that provide for practical growth. Student employment plays a significant role in the development of student's social and educational outcomes (Athas et al., 2013). Centered on the student's motivation and self-direction opposed to traditional pedagogical approaches, Astin's (1999) seminal student involvement theory accounts for the variety of learning experiences on an institutional campus. Involvement occurs through academic experiences, extracurricular activities, and interaction with faculty and staff (Astin, 1999). Astin's (1999) theory associates student development to energy spent on a particular college experience. This theory directly connects physical and psychological time spent through involvement to the amount of learning and development acquired by the student. While students are part-time employees, many spend a considerable amount of their undergraduate experience engaged in workplace activity. Due to this physical commitment and based on the student involvement theory, this experience lends way to students' holistic development. Students engaged in campus employment are, therefore, positioned to have higher levels of learning and development than students that are not actively pursuing involvement.

While college instruction promotes student learning, it is through employment that students take away authentic day-to-day experiences applicable to future careers and interactions

with others (Athas et al., 2013). Kincaid (1996) shared, “Student employment is more than an educational laboratory. Students learn tremendous amounts in experiential settings and test their academic lessons in the work world laboratory” (p. 7). Experiential learning allows for the development of transferable skills, acquired through learning contexts beyond the classroom (Fede et al., 2018). The experiential learning theory, developed by Kolb, is a theory based on the work of seminal scholars including John Dewey, Kurt Lewin, and Jean Piaget (Kolb, 2015). The model identifies four stages of learning including concrete experience, reflective observation, abstract conceptualization, and active experimentation (Merriam & Bierema, 2014). According to the Association for Experiential Education (n.d.) this learning design requires the experience to include opportunity for mistakes, repercussions, and success (Gass et al., 2012). Employment allows for hands-on application, problem solving, reflection through performance management, and application both on the job and in future professional experiences. Furthermore, student employment as an experiential, involvement experience can result in transformation. A student employee’s world view can evolve through the student employment experience. This transformation is a result of cognitive and psychological engagement acquired through transformational learning (Debebe, 2009). Transformational learning challenges the student’s assumptions and results in significant, enduring change in both the learner’s understanding and behavior (Debebe, 2009). However, while learning happens in this co-curricular setting, it is not always intentional (Athas et al., 2013). Therefore, it is important for institutions to recognize and intentionally design the student employment experience, acknowledging the significant role it can play in students’ holistic learning.

Additionally, students are exposed to leadership through student employment. Strong et al. (2013) affirmed, “Cultivating leadership skills is important for students who are developing

professional competencies” (p. 175). Employment can provide an outlet for empowerment and enhanced self-leadership. Neck and Houghton (2006) described self-leadership as “specific behavioral and cognitive strategies designed to positively influence personal effectiveness” (p. 271). It is recognized that leadership requires influence (Northouse, 2013). Self-leadership is a “self-influence process through which people achieve the self-direction and self-motivation necessary to perform” (Neck & Houghton, 2006, p. 271). Students are exposed to influential supervisors and colleagues through student employment. These influential individuals create a power relationship between themselves and the students, and they can unintentionally affect students’ outlooks, standards, and behaviors (Northouse, 2013). A student’s employment type, defined for the purpose of this study as a positional assignment or task-related role, may also impact exposure to leadership both positionally, in terms of opportunity, and developmentally, as a student acquires leadership growth through both experience and influence. A student’s exposure to leadership development and application of self-leadership as an undergraduate employee will position them to apply these behavioral and cognitive strategies in the professional field post-graduation. However, employability could be further enhanced if institutions intentionally designed employment experiences to foster learning and leadership.

In brief, on-campus employees are maximizing their college experience and development through involvement in learning contexts by way of employment. They have access to build relationships with faculty and staff who lead their departments or support functional areas. This type of connection has been found to generate higher student engagement, enhanced sense of campus belonging, and maturation (Fede et al., 2018). Institutions should use the employment experience as an additional way to serve students in the co-curricular, providing workforce preparation and heightened competency development while also providing an outlet for self-

leadership. In return, campuses will see involved students that are engaged within their learning context prevail as graduates and find job placement post-graduation. Therefore, due to its implications on learning and maturation, further exploration of student employment is useful both presently and in the future for both the student and institution. By exploring holistic learning and self-leadership by employment type, this research will add to existing literature that guides institutions' application of student employment experiences.

Statement of the Problem

As students are preparing to enter the workforce, educators should question how campus experiences impact their ability to productively contribute as workplace leaders. Over the past few decades, scholars have begun to study employability and recommend shifts from traditional learning frameworks to a broader, holistic approach to higher education (Jenkins et al., 2018; Kuh, 2008; Peck & Preston, 2018). Achieved through an experiential approach, student employment has become a catalyst for co-curricular learning and future employability (Athas et al., 2013; Fede et al., 2018). However, without intentionality in employment design, including training and supervision, students may not be able to fully access the personal and professional growth associated to student employment. In an effort to supplement this body of research and promote a transformative, holistic learning experience, this study examined the relationship between students' employment type and its association to learning outcomes and self-leadership behaviors. Furthermore, this study identified whether a relationship existed between developmental learning outcomes and self-leadership.

There are two primary benefits of this examination for universities. First, university mission statements which outline learning or engagement as mission pillars could align their goals with actions associated to student employment. Mission achievement would happen by

enhancing learning through the intentional use of two learning environments, the curricular and the co-curricular. While the curricular would be maintained through academic instruction, co-curricular experiences achieved through employment would support engagement and outcome-driven learning. Student employment should not only be a means for the execution of campus operations. Rather, employment should play a pivotal role in the growth of the whole student. Secondly, the results of this research may also assist in the development of employment training, thus resulting in a higher return on investment and workplace satisfaction for both the employee and employer. Because institutions host a variety of employment types, cohesive models for training may be difficult to administer. This research provided insight on each type's relation to both holistic learning and self-leadership. Results may inform training solutions for future employees across a variety of employment contexts (Athas et al., 2013). This research was not designed to predict or encourage job assignment based on competency development or leadership behaviors; rather, this research supplements existing training and development practices to best support the learner and institution.

Purpose of the Study

The purpose of this study was to identify student employees' holistic learning and self-leadership based upon their type of employment, as well as explore whether a relationship exists between developmental learning outcomes and self-leadership among this population of college students. Student employees are collegiate students engaged in on-campus, part-time employment while working to attain a bachelor's degree. The student employee's employment type is the job assignment or learning context in which student experiences campus employment. This research may enhance practitioners' understanding of on-campus employment by positional type with the potential to enhance the students' learning and leadership development. Student

employment can contribute to the comprehensive undergraduate education, providing for authentic experiences which are applicable to contexts outside the traditional classroom (Athas et al., 2013). With exposure to educational experiences such as student employment, students increase opportunities to learn while further developing their leadership potential (Astin & Astin, 2000).

McFadden and Wallace Carr (2015) found three essential factors needed within employment roles to grow students' leadership capacity. These factors included an understanding of student learning styles, student development, as well as the type of work being conducted (McFadden & Wallace Carr, 2015). This research investigated the latter two recommendations. Additionally, King and Baxter Magolda (2011) stated, "Both person (learner characteristics) and environment (learning context) must be considered when designing educational experiences" (p. 214). Through study of student employment learning contexts by type of employment, and its relation to learner characteristics, educators may be better equipped to facilitate intentional learning experiences outside the classroom. If a relationship is identified between learning and leadership, institutions can use this knowledge to better guide supervisors in developing students' skill attainment through workplace training and specific on-the-job experiences.

Upon a review of literature, there was a gap in literature pertaining to student employees' employment type (or learning context). Literature supporting student employee learning was heavily focused on institutional units within student affairs (Athas et al., 2013; Bentrin et al., 2013; Burnside et al., 2019; Hall, 2013). This study contributed to this gap by including participants employed across the entire institution. The study was not limited to a singular division, department, or employment type. Additionally, the literature on leadership development was focused on broad generalizations of all students in higher education, or very specific groups

of employees or student demographics (Dugan & Komives, 2006; Haber et al., 2009; Salisbury et al., 2012; Tingle et al., 2013). This study contributed to this gap by determining the leadership behaviors of student employees based upon seven different employment types. Lastly, the relationship between learning and leadership among undergraduate student employees was examined to add to the existing literature. Few studies concentrated on academic programs or other formal learning environments in relation to student leadership learning (Brown & Posner, 2001; Strong et al., 2013). This study focused on these gaps in the literature, and may further assist institutions in designing better educational experiences through student employment.

Research Questions

This study examined the following questions:

1. Are there significant differences in learning outcomes of student employees based upon their type of employment?
2. Are there significant differences in the leadership behaviors of student employees based upon their type of employment?
3. What is the relationship between student employees' learning and leadership behaviors?

Significance of the Study

It is difficult to place a singular definition on the concept of leadership (Northouse, 2013). However, there are noteworthy components that supported the research questions. One component is the idea that leadership is as a process. The process of leadership simply means the leader impacts others while being affected by its cohorts (Northouse, 2013). With this knowledge, it is presumable that leadership is available to all, as it is acquired with experience and interaction (Northouse, 2013). As students strive to develop personally and professionally, the construction of leadership is an important part of their growth process (Strong et al., 2013).

Through the variety of student employment types, students are exposed to interactions that can assist with the construction of leadership. Additionally, based on their previous interactions, students begin the job with preconceived notions of leadership and the ability to impact their fellow employees (Northouse, 2013).

Moreover, learning is value-neutral concept; therefore, there is not a singular method or best-practice for learning (Mackeracher, 2004). Prioritizing learning through employment would promote student transformation, better serving students' holistic development and application of skills in both academic and professional settings (Lewis, 2008). Transformative learning requires reflection and autonomous thinking; these learning strategies assist learners with developing self-awareness (Allen, 2007). Through heightened self-awareness, learners are positioned to develop and utilize self-leadership.

Together, both leadership and learning are important components of the student employment experience. Each element is central to developing students' potential to serve the institution alongside prepare for a professional career. By identifying students' leadership behaviors, training could be implemented to better support supervisors guiding employee's development. This could also promote the creation of strategies for building self-authorship within the employment role. Additionally, learning should be appraised to challenge students within their current roles and better prepare them for future professions (Strong et al., 2013). With a better understanding of learning based on employment type, institutions can work to create training and experiences to better align with desired learning outcomes, fostering employability. Concisely, this study was significant due to its potential to unveil whether there was a relationship between learning and leadership and whether there were significant differences in the students' learning and leadership based on their employment type. The

knowledge gained from this research hoped to contribute to existing literature and provide insight on the benefits of the employment experience as it related to holistic growth.

Limitations

This study had several limitations. At the onset, the results may not be a representative sample of all institutional student employees. The sample population used for study was acquired at a large, southeastern, public university. Each institution differs in size as well as their classifications of student employees. For the sake of this study, participants were undergraduate work-study students, as indicated by their financial aid status, and hourly workers who did not qualify for financial assistance. Therefore, caution should be taken when attempting to generalize the data to a population at an alternate institution. Additionally, this study only looked at institutional student employees working in on-campus roles. The study did not extend to students partaking in off-campus employment opportunities. Lastly, the study was conducted during the summer months of the COVID-19 pandemic. Students' developmental results could have been affected by the transition to online learning and/or furloughed employment during the semester prior-to survey completion. The pandemic also impacted the survey distribution timeline. Surveys were not distributed during a high-volume time of enrollment (traditionally the spring or fall semesters). It was immediately distributed following the conclusion of the academic year, during the summer months. This gap of time between the experience and survey completion could have impacted the students' self-perception of the experience. Furthermore, it limited the opportunity to connect with a larger representative sample across campus.

Assumptions

The following assumptions were made for the purpose of this study:

1. The Student Employee Outcomes Survey (SEOS) determines outcomes reflecting participants' holistic learning and development. The SEOS provides a valid measure of learning outcomes.
2. The Revised Self-Leadership Questionnaire (RLSQ) identifies student employees' self-leadership dimensions. The scores determined through this questionnaire are valid.
3. Eligible student employees voluntarily elected to participate and responded truthfully without assistance to the survey questions.

Definitions

1. Employment type - the job assignment or learning context in which a student experiences campus employment.
2. Holistic learning – a comprehensive and transformative outcome-driven process that integrates academic learning and student development (King & Baxter Magolda, 2011; The National Association of Student Personnel Administrators [NASPA] & The American College Personnel Association [APCA], 2004).
3. Leadership – the practice wherein a person influences a collection of individuals to accomplish a common goal (Northouse, 2013).
4. Leadership development - the growth of an individual's ability to be effective in leadership positions and practices (Velsor et al., 1998).
5. Learning – the interactive process of interpreting life's experiences into meaning and using this new meaning when solving problems and making decisions (Mackeracher, 2004). Learning is multidimensional as it can highlight cognitive or knowledge based

growth, psychomotor skill development, or affective, emotional responses (Merriam & Bierema, 2014).

6. Learning outcomes – a framework intentionally designed to measure knowledge or competencies developed from an experience (Burnside et al., 2019).
7. Self-leadership – a self-induced process where an individual is self-motivated and self-directed resulting in desirable behavior and performance (Houghton & Neck, 2002). Self-leadership is grouped into three categories: behavior-focused strategies, natural reward strategies, and constructive thought strategies (Neck & Houghton, 2006).
8. Student employee – collegiate students engaged in on-campus, part-time employment while working to attain a bachelor's degree.

Organization of the Study

This study was organized into five chapters. Chapter 1 introduced the study, presented the research problem, and its purpose. Additionally, it identified three research questions, outlined the study's limitations, and provided definitions of terms. Chapter 2 introduced a review of relevant literature associated with student employment, holistic learning, and self-leadership. The third chapter of this study focused on the methods used to assess and analyze the participants. This included an introduction to the sample, a review of the materials and steps taken to collect data, along with the method for data analysis. With an understanding of the method, the fourth chapter presented the study's results. Lastly, Chapter 5 summarized the study as well as addressed conclusions, implications, and recommendations for future research.

Chapter 2

Literature Review

Chapter 2 begins with a review of the research questions followed by an introduction to student employment. Following the introduction, the chapter progresses in three sections, comprehensively addressing the literature associated to each research question.

Research Questions

This study examined the following questions:

1. Are there significant differences in learning outcomes of student employees based upon their type of employment?
2. Are there significant differences in the leadership behaviors of student employees based upon their type of employment?
3. What is the relationship between student employees' learning and leadership behaviors?

The first section provides foundational information on learning and its relationship to student employment. This section begins with a review of learning and development, followed by an introduction to holistic and transformative learning theories. Literature associated to holistic, transformative learning within student employment programs was reviewed. The second section provides foundational information that supports leadership as a component of a student employment experience. This section begins an overview of leadership development in higher education and is followed by studies related to student employees' leadership development. The second section concludes with a detailed review of self-leadership. The third section of this chapter connects learning to leadership. This section reviews previous studies that have examined the relationship between learning and leadership.

Purpose of the Study

The purpose of this study was to identify student employees' holistic learning and self-leadership based upon their type of employment, as well as explore whether a relationship exists between learning and leadership among this population of college students. This research has the potential to enhance practitioners' understanding of on-campus employment by positional type which could result in enhanced student learning and leadership development.

McFadden and Wallace Carr (2015) found three essential factors needed within employment roles to grow students' leadership capacity. These factors included an understanding of student learning styles, student development, as well as the types of work being conducted (McFadden & Wallace Carr, 2015). This research investigated the latter two recommendations. Additionally, King and Baxter Magolda (2011) stated, "Both person (learner characteristics) and environment (learning context) must be considered when designing educational experiences" (p. 214). Through this study of student employment learning contexts identified through the type of employment, and its relation to learner characteristics, educators will be better equipped to facilitate intentional learning experiences. Lastly, if a relationship is identified between learning and leadership, institutions can use this knowledge to better guide supervisors in developing students' skill attainment through workplace training and on-the-job experiences. To contribute to the existing literature pertaining to student employees' learning and leadership, student employment will first be introduced as a component of the university experience.

Student Employment

Student employment is an important factor of a comprehensive undergraduate education, providing for authentic experiences applicable to contexts outside the traditional classroom (Athas et al., 2013). Though most all higher education institutions employ students, employment

goals, contexts, environmental factors, and operations vary from institution to institution (Burnside et al., 2019; Peck & Callahan, 2019). Employment supports institutions' missions and supplements the work of professional, full-time staff. Students are not solely administrative support personnel, however. Students serve a variety of roles which broadly serve the institution's functions. At four-year institutions, some of the primary campus operations that support student employment include residence life, campus recreation, academic schools and departments, athletic departments, student affairs, and college libraries (Burnside et al., 2019). Students can be found completing a wide array of tasks through their employment assignments. From maintaining facilities to guiding prospective students on campus tours, students engage in many different types of work-related experiences (Perozzi, 2019). Furthermore, there are different outlets for students to engage in employment within a collegiate community. Some students engage through federal work-study programs, while others pursue hourly-assignments available to any student regardless of financial aid status (Peck & Callahan, 2019). Then, there are also students that seek off-campus opportunities for employment (Peck & Callahan, 2019). Due to these variations in function and type, institutions that wish to measure the impact of the student employment experience must first define student employees (Peck & Callahan, 2019). Burnside et al. (2019) defined student employees as students enrolled at least half-time in an undergraduate program and employed part-time by an institution to work in a campus facility. They receive hourly wages and are supervised by institutional staff (Burnside et al., 2019). This definition aligned with the current study.

Student employment is not a new trend in higher education. In 2015, Georgetown University's Center on Education and the Workforce released the findings of a study designed to analyze characteristics of working learners (Carnevale et al., 2015). They found more than 70%

of college students have been employed while enrolled over the past 25 years (Carnevale et al., 2015). The National Student Employment Association (NSEA) shared that the student employment movement, which led to the creation of their organization, gained momentum in 1961 when higher education professionals at Midwestern universities came together to promote the interests of student employment (NSEA, 2015). More than fifty years later, NSEA has hundreds of members, four regional associations, and supports student employment through professional development, publications, and research (NSEA, 2015).

Student employment research is often focused on its relationship to academic performance and hours worked. Grant et al. (2005) studied student employees' course load, workload, and academic performance. They found the number of hours worked and the perception of employment interference with academics were negative predictors of academic performance (Grant et al., 2005). Pike et al. (2008) studied first year students' employment experience as it related to engagement and academic achievement. They found a negative relationship between hours worked and academic performance when first year students engaged in more than 20 hours of work per week (Pike et al., 2008). Wenz and Yu (2010) also studied the effects of employment on academic performance and found a slightly negative impact. However, their results indicated that off-campus employment was more damaging to academic performance than an on-campus job (Wenz & Yu, 2010). Logan et al. (2015) examined the employment workload of off-campus employees. They found that students working more than 20 hours per week at off-campus jobs had lower grades than their peers who work less hours (Logan et al., 2015). Kyte (2017) also focused on hours worked through student employment. Kyte (2017) found that students working more than 15 hours per week were often from underserved backgrounds and less prepared for the academic rigors of college. Furthermore, after two years

of enrollment maintaining 15 hours per week of employment, students were less likely to make timely progress towards degree completion (Kyte, 2017).

Years of research have provided for a better understanding of student employment and its impact on academic performance (Grant et al., 2005; Kyte, 2017; Logan et al., 2015; Pike et al., 2008; Wenz & Yu, 2010). However, with the evolving landscape of higher education, institutions have started to determine if and how programs and experiences, such as student employment, provide value to a student's comprehensive experience (Peck et al., 2015). As a result, other prominent topics of student employment research focus on student learning and development as well as leadership. Both learning and leadership among undergraduate student employees were central to this study.

Learning and Development

King and Baxter Magolda (2011) coupled learning and development as an integrated approach to college student success. Whereas learning is often viewed as curricular and faculty-facilitated in college settings, development is traditionally seen as a whole-systems approach and achieved through the co-curricular (Dungy & Gordon, 2011; King & Baxter Magolda, 2011). However, a “comprehensive education” (Dungy & Gordon, 2011, p.67) does not limit its focus to one or the other. Rather, attention to students’ cognitive acquisition and how students change and grow should be considered related components of one learning process (King & Baxter Magolda, 2011; Reason & Broido, 2011). Therefore, though there are many definitions of learning, when assessing student employees, learning should be a “comprehensive, holistic, transformative activity that integrates academic learning and student development” (NASPA & ACPA, 2004, p.2). There are a variety of models and theories available to practitioners looking to enhance learning. The driving learning principles related to student employment and

investigated through this study were holistic learning and transformational learning guided by an outcome-driven approach to development.

Wawrzynski and Baldwin (2014) stated, “Ideally, all dimensions of the college experience contribute to student learning and development” (p.51). A comprehensive experience should therefore include campus employment in addition to traditional classrooms (Wawrzynski & Baldwin, 2014). Learners integrate lessons learned in the classroom to experiences fostered through employment. Through integrated learning, employees consider multiple perspectives, question assumptions, and reflect (Wawrzynski & Baldwin, 2014). This convergence of knowledge and application provides for holistic learning and potential transformation in self-perception and world view (Wawrynski & Baldwin, 2014).

Holistic, Transformative Learning

Holistic learning, or development of the whole student, was first introduced in 1937 by the American Council on Education (ACE) through the publication of the *Student Personnel Point of View* (Henning et al., 2020). Practitioners within the field of student affairs utilize this learning framework to support the whole student experience, integrating academics with development (Dungy & Gordon, 2011). This concept affirmed that students learn in and out of the traditional classroom context (Henning et al., 2020). Students are the center of learning, but the entire campus community must collaboratively contribute to the student’s success (NASPA & ACPA, 2004). This holistic learning framework also acknowledged student diversity. Students are multi-dimensional, bringing unique and significant life experiences with them to their college campuses (NASPA & ACPA, 2004). To engage the whole student, practitioners must acknowledge the students’ history and its influences on both their acquisition and application of learning (NASPA & ACPA, 2004).

Much like the holistic learning model, transformational learning is reliant on students' experiences and influences which create their "frame of reference" (NASPA & ACPA, 2004, p. 9). Based on the seminal work of Jack Mezirow (1978), transformational (or transformative) learning happens when reflection on the environment and learning are coupled (Mezirow, 2009). A student employee's world view can evolve through a holistic, developmental student employment experience. Learners (in this case student employees) reflect on new knowledge and relate it to life experiences; this process allows the learner to make meaning of the newly acquired information (NASPA & ACPA, 2004).

Transformational learning is a commonly applied adult learning method which challenges the learner's assumptions resulting in significant, enduring change in both understanding and behavior (Debebe, 2009). Malcolm Knowles, a seminal scholar of adult education, summarized the core principles and assumptions of adult learners (Holton et al., 2001). Over a course of years, Knowles (1980) identified six assumptions which have implications on the preparation, application, and design of adult learning activities (Merriam, 1987; Merriam & Bierema, 2014). Knowles' (1980) assumptions of adult learners began with a short-list of four assumptions, including:

- Learners' are self-directed.
- Learners' experiences serve as resources for learning.
- Learners' readiness is associated with developmental tasks of social roles.
- Learners' are problem-centered rather than subject-centered (Knowles, 1980).

In later publications, two additional assumptions are added (Merriam & Bierema, 2014). These assumptions include:

- Learners' are internally motivated.

- Learners' need to know the need for learning something (Merriam & Bierema, 2014).

Lessenger (2019) drew a connection between Knowles' adult learner assumptions and undergraduate students. Based on these assumptions, Lessenger (2019) considered undergraduate students emerging adults. Students enter college with a bank of experience (Lessenger, 2019). Their self-concept is multifaceted, and their readiness is impacted by social roles (Lessenger, 2019). Each of these student attributes align with assumptions of adult learners, the holistic learning framework, and transformational learning.

Holistic development requires focus on how students' identity and self-perception evolve through an experience (Long, 2012). To engage students holistically, institutions must consider the interpersonal dimensions of a student's life (Long, 2012). Moreover, transformative learning "transforms problematic frames of reference (mindsets, habits of the mind, meaning perspectives)" (Mezirow, 2009, p. 92). Thus holistic, transformative learning warrants consideration of a students' social roles and prior experiences.

Learning Outcomes

Students that experience holistic, transformative learning while in college are exposed to intentional learning through a variety of contexts including the classroom, experiences in the co-curricular, community engagement, and international experiences (NASPA & ACPA, 2003). Employment is one outlet for engagement through the co-curricular, and therefore, institutions striving for a holistic, transformative approach to learning should work to create an employment experience that fosters intentional learning. Reason and Broido (2011) reinforced that learning is "larger and transformative" (p. 92). Learning integrates cognitive growth, personal development, and identity development (Reason & Broido, 2011). However, without a "shared understanding of the knowledge and skill sets students are intended to acquire from an experience" (Burnside,

et al., 2019, p. 40), institutions limit their ability to consistently capture learning. By establishing learning outcomes, institutions better structure the employment experience around learning (Burnside et al., 2019).

Burnside et al. (2019) examined on-campus student employment which resulted in a closer look at learning outcomes as a capacity building opportunity for student success. Through a three-phase landscape analysis, the researchers conducted 27 interviews and six site visits at a variety of institutions across the nation. In addition, they surveyed 244 institutions. Their results aided institutions looking to maximize student employment as a means for student success through the identification of five capacity areas. These capacity areas provided support for scaling an on-campus employment experience. The capacity areas included leadership engagement, hiring policies and procedures, growth and professional development opportunities, assessment and evaluation, as well as student learning outcomes (Burnside et al., 2019). They concluded students can improve skills and competencies as a result of their employment experience. However, intentionality through outcome-driven learning frameworks allowed institutions to more consistently apply and assess learning (Burnside et al., 2019). While institutions should identify student learning outcomes for employment, only 37% of their respondents indicated a current or forthcoming learning framework for their student employment programs (Burnside et al., 2019).

Kuh (2010) also acknowledged the potential of a student employment experience to both increase and enhance learning. To achieve this, he noted it is the responsibility of the institution to intentionally develop employment experiences that have learning goals, or outcomes, and opportunities for self-reflection (Hansen & Hoag, 2018; Kuh, 2010). When a learning-centered approach is achieved, students have increased ability to connect learning to other experiences,

develop leadership skills, and improve their probability of success in future career settings (Hansen & Hoag, 2018).

When crafting learning outcomes, some practitioners identify learning goals that support internal sources, such as a university or departmental mission or value statements, or external needs, such as employer indicated competencies desired for entry level roles (Henning et al., 2020). Others rely on the leadership and support of professional associations and consortiums to guide their outcome-driven learning. The Council for the Advancement of Standards in Higher Education (CAS) is a leader in higher education and responsible for the creation of learning outcomes that serve as a benchmark for the standard quality of programs and services that attribute to student learning (CAS, 2015). CAS (n.d.) is comprised of more than 40 professional associations and recommend the alignment of institutional learning outcomes to six broad categories of learning, consisting of 26 outcomes for learning (CAS, 2015; Henning et al., 2020). These broad learning domains include:

- knowledge acquisition, construction, integration and application
- cognitive complexity
- intrapersonal development
- interpersonal competence
- humanitarianism and civic engagement
- practical competence (CAS, 2015)

Another commonly applied framework used to establish learning outcomes is the National Association of Colleges and Employers (NACE) career readiness competencies (Burnside et al., 2019). In 2014, NACE surveyed more than 600 employers representing nearly 20 industries that recruit new hires on university campuses (NACE, 2020). The survey assessed these

organizations' desired competencies in college graduates. This resulted in seven career readiness competencies (NACE, 2020). Years later, NACE added an eighth competency to the list.

NACE's career readiness competencies include:

- critical thinking/problem solving
- oral/written communications
- teamwork/collaboration
- digital technology
- leadership
- professionalism/work ethic
- career management
- global/intercultural fluency (NACE, 2020)

Other commonly applied learning outcomes are those established in *Learning Reconsidered: A Campus-Wide Focus on the Student Experience* (NASPA & ACPA, 2004). Designed to be accomplished across a variety of campus outlets for learning, these learning outcomes are “complex and cumulative” (NASPA & ACPA, 2004, p. 23). The seven, transformative outcomes were established to support that notion that academic learning and student development are integrated (NASPA & ACPA, 2004). The outcomes include:

- cognitive complexity
- knowledge acquisition, integration, and application
- humanitarianism
- civic engagement
- interpersonal and intrapersonal competence
- practical competence

- persistence and academic achievement (NASPA & ACPA, 2004)

The University of North Carolina at Greensboro (UNCG) used this framework for measuring student employee learning (Bentrim et al., 2013). They investigated student employees' learning within the division of student affairs using a mixed-methods study. Student employees completed a pre- and post-survey which required them to self-rate their competency levels (Bentrim et al., 2013). The survey revealed the highest learning impact was in the area of leadership development and collaboration (Bentrim et al., 2013). They then hosted focus groups to better understand how the students' employment experience impacted their skill attainment and persistence (Bentrim et al., 2013). Through the focus groups, they found that the students' self-perception and experience was impacted by their level of job-related responsibility (Bentrim et al., 2013). The findings supported the use of intentional learning in the campus employment experience. The study allowed the division to illustrate the impact of the student employment experience and draw on lessons learned to intentionally train and target future outcomes (Bentrim et al., 2013). However, the study was limited to students employed through student affairs.

Hall (2013) evaluated the influence of campus recreation employment on student learning. Hall (2013) noted that while learning outcomes are often emphasized, "little is known about whether students achieve these desired outcomes" (p.136). The study explored how part-time employment contributed to gains in learning outcomes (Hall, 2013). The *Learning Reconsidered* outcomes were applied to this study (Hall, 2013; NASPA & ACPA, 2004). More than 200 employees participated in the study and self-reported learning outcomes gained during their experience. The students reported the level of change they had experience for each outcome. Hall (2013) found that students employed in the campus recreation department made

positive gains in learning outcomes. Positive gains were found in collaboration and communication skills (Hall, 2013). Participants also indicated that employment supported academic learning, career readiness skills, and relationship building (Hall, 2013). Hall (2013) concluded that employers should include learning outcomes in job descriptions and recruitment materials to assist students with recognizing the benefits of campus employment.

Scholars at The Ohio State University studied student employee learning outcomes focused specifically on their relationship to the learning environment. Published in 2013, the Student Employee Outcomes Survey (SEOS) was designed to support the measurement of learning (Athas et al., 2013). The SEOS was selected for use in the present study due to its alignment with learning and development and application to student employees. The SEOS examined the employment experience and acquisition of transferable skills and competencies. Athas et al. (2013) asserted that there are two learning environments on a college campus, including the curricular and the co-curricular. Furthermore, they claimed that learning takes place in both realms and overlap, allowing acquired learning in the curricular to be practiced in the co-curricular (Athas et al., 2013).

The SEOS assessed a student employee's self-perceived influence of their campus job on various competencies and attributes (Athas et al., 2013). The survey's items were designed to embody core components of post-secondary learning; these components aligned with CAS learning domains and were further supported by the host institution's internal set of transferable skills, based on career readiness literature (Athas et al., 2013). The SEOS consisted of 45 questions related to four distinct learning and developmental categories including intrinsic/personal development, self-regulation, leadership/career skills, and career exploration (Athas et al., 2013). Survey participants self-assessed their development and acquisition of

attributes and transferable skills by reflecting on their employment experience and using a six-point Likert scale to pinpoint the extent of their development (Athas et al., 2013).

Study participants were both graduate and undergraduate students, including part-time and work-study students as well as paid and unpaid interns. The study included 1,415 participants that were prompted through survey completion to self-report development. Each question began with “my experience as a student employee has...” (Athas et al., 2013, p. 58). Student employees then reflected on their experience as it correlated with items associated to five scales of development and three scales of civic involvement.

Data suggested that the employment experience, as perceived by the participants, influenced their skill development. The researchers concluded underclassman students’ perception of their interpersonal skills to be greater than older students; however, community involvement was the greatest predictor of interpersonal growth (Athas et al., 2013). They also found students reflected growth in personal wellness awareness when the work environment developed the student’s community involvement (Athas et al., 2013). Furthermore, civic engagement was a predictor of practical skill acquisition, academic self-efficacy, and self-awareness.

Athas et al. (2013) made recommendations for future research which included the potential for a study by job type. They stated, “Development may vary depending upon the job type, and further study would help to illuminate differences and inform training and programming efforts to ensure that all student employment opportunities achieve well-rounded student development” (Athas et al., 2013, p. 63). In alignment with their recommendation, the present study applied the SEOS to examine learning and development by employment type.

Just as Athas' et al. (2013) outcome-driven study focused on the whole student, the study of leadership development also requires "attention to the whole student" (Gott et al., 2019, p. 29). As students experience holistic, transformative learning, they are applying their frames of reference to make meaning of experiences (Allen, 2007). In return, their worldview shifts. This experience may result in enhanced self-awareness which is a significant concept of leadership development (Allen, 2007).

Leadership

Leadership development can be defined as the growth of an individual's ability to be effective in leadership positions and practices (Velsor et al., 1998). Humans are fascinated with the concept of leadership and regularly seek information for becoming more effective leaders (Northouse, 2013). Martin and Ernst (2005) supported that leadership has been more extensively investigated than any other aspect of human behavior. Influenced by a variety of factors, individuals often relate the definition of leadership to their experiences, politics, to a specific area of study, or interest (Northouse, 2013). Rost's (1991) research supported that the twentieth century alone accounts for more than 200 definitions of the term. Over the twentieth century, definitions of leadership were grounded in the concepts of influence, obedience, and power; the definition later became associated with the idea of behavior (Bass, 1990; Northouse, 2013; Rost, 1991). This definition focused on the individual's ability to direct organized communal activity. Later decades focused on themes related to group-work and relationships, emphasizing leadership is determined through group success, and it also comprised an alignment with the concepts of shared values, transformational experiences, and trait orientation (Bass, 1990; Northouse, 2013; Rost, 1991). The twentieth century alone serves as evidence that a unified definition of leadership is unattainable. However, it is agreeable that leadership as a concept is

complex and varies in meaning (Bass, 1990; Northouse, 2013). Because workplace settings typically call for vision casting and goal accomplishment, it is easy to align the concept of leadership to the practice of workplace performance. In order to study the self-leadership of student employees, literature was reviewed related to collegiate leadership development and the evolving study of leadership within the scope of student employment.

Student Leadership Development within Higher Education

Collegiate leadership development is often emphasized in organizational or classroom settings (CAS, 2015; Kiersch & Peters, 2017). However, institutions should consider the student employee community as an intact group for leadership building (Peck & Callahan, 2019). By doing so, they can provide “equitable access” to leadership development (Peck & Callahan, 2019, p 19). Furthermore, when leadership development is intentionally fused into an employment program, campuses promote a holistic learning experience (Peck & Callahan, 2019). Still, it is common for a higher education institution to primarily offer leadership development through co-curricular experiences in specified campus leadership roles (CAS, 2015). Students who have previously demonstrated leadership through appointment to a leadership role, such as student government association officers, Greek organization presidents, and residence life assistants, gain value through these organizational experiences (CAS, 2015).

Haber et al. (2009) explored the contributions of co-curricular involvement on an undergraduate student’s leadership capacity. Focusing on students’ individual values as identified through the Social Change Model of Leadership, data were collected from more than 3,000 undergraduate students at a four-year, public research institution in partnership with the Multi-Institutional Study of Leadership (MSL). Input, environment, and output measures were reported, with involvement inputs and environments such as student organizations, varsity sports,

and community organizations. Student employment was not a recognized input or environment. They concluded that involvement in student organizations was the most significant environmental variable for all participants (Haber et al., 2009). Furthermore, community involvement was the most significant for collegiate women (Haber et al., 2009). Haber et al. (2009) recommended future research on the topic with broadened environmental variables to better understand other campus environments which contribute to leadership outcomes.

Dugan and Komives (2006) also studied the development of leadership capacity in college students through a multi-institutional, multi-year study which engaged more than 50,000 students on 52 college campuses. Their study intended to better understand student leadership development and how college experiences impacted the developmental process (Dugan & Komives, 2006). The researchers applied the Social Change Model of Leadership as the theoretical foundation and designed an instrument that combined multiple leadership scales to assess social responsibility, leadership efficacy, and other outcome variables (Dugan & Komives, 2006).

Dugan and Komives (2006) found high scores for social responsible leadership and leadership efficacy. They also found participants had significantly enhanced scores from their pre-college experience to their senior year. However, they were not able to determine how the college environment influenced that change (Dugan & Komives, 2006). Lastly, college experiences demonstrated up to 14% of the variance in outcomes. Socio-cultural discussion was the most impactful predictor of growth (Dugan & Komives, 2006). Additionally, faculty and employer mentoring was a strong indicator of leadership efficacy, and campus involvement in intramurals, clubs, and organizations moderately effected development (Dugan & Komives, 2006). In addition to these predictors, community service and positional leadership roles

influenced development (Dugan & Komives, 2006). Dugan and Komives (2006) provided 10 recommendations for institutions wishing to enhance student leadership development. Two of their recommendations aligned with the student employment experience. They suggested, “Take leadership training to places students are involved including recreational sports clubs, academic clubs, honor societies, service learning settings, and student employment” (Dugan & Komives, 2006, p. 18). Additionally, they encouraged institutions to “require developmental supervision for all on-campus student employment positions” (Dugan & Komives, 2006, p. 18). These recommendations support the need for institutions to acknowledge that leadership can be developed through the employment experience (Okpala et al., 2011). Institutions should focus on strengthening the employment experience as a means for enhancing student knowledge, leadership ability, and skills (Perozzi, 2019). Each employing department must also acknowledge their role in developing student leadership (Peck & Callahan, 2019).

Campus recreation is one of the largest employing departments of students on college campuses nationwide (McFadden & Wallace Carr, 2015). However, leadership capacity has been narrowly studied within campus recreation settings (McFadden & Wallace Carr, 2015). NIRSA, a professional association for collegiate recreation, identified leadership as a strategic value for their association and has called on campus recreation professionals to develop student leaders (NIRSA, 2020). As a result, campus recreation professionals have started identifying frameworks and pathways for student leadership development (Correia-Harker & Hall, 2019). Yet, leadership development specifically among campus recreation student employees has been narrowly investigated. A study authored by Tingle et al. (2013) examined the value of leadership training with 52 campus recreation student employees over the course of two years. They used the Student Leader Practices Inventory (SLPI) in a pre- and post-test format to measure leadership

development among three training groups. Their results indicated that meaningful leadership development occurred when training was intentionally designed and delivered.

In addition to campus departments' investment in student employment, scholars' interest in unique student populations, such as first-year students, has provided for a closer examination of the relationship between employment and leadership development. Salisbury et al. (2012) examined the effects of student employment on leadership development among first-year college students. They analyzed data from more than 2,000 students across 19 institutions and found employment to have a positive effect on first-year students' leadership development. Their study focused on both on- and off-campus student employees (Salisbury et al., 2012). Their results indicated an even more influential relationship between off-campus student employment and leadership (Salisbury et al., 2012). As a result, they stated that institutions should ensure the campus employment experience is equally as beneficial as working off-campus (Salisbury et al., 2012). Institutions that look to embrace a whole campus approach to leadership development should turn to student employment as an outlet for growth (Dugan & Komives, 2006; Peck & Callahan, 2019; Perozzi, 2019).

Furthermore, professional development has evolved over the past decade, focusing on students' skill-attainment, and can be directly linked to leadership development (Greenwald, 2010; Seemiller, 2016). This newfound focus on competency-based development, or career readiness, has directed focus to student employment and its impact on leadership development. NACE identified leadership as a career readiness competency desired by employers (NACE, 2020). NACE (2020) defined the leadership competency as:

Leverage the strengths of others to achieve common goals, and use interpersonal skills to coach and develop others. The individual is able to assess and manage his/her emotions

and those of others; use empathetic skills to guide and motivate; and organize, prioritize, and delegate work (NACE, 2020, Definition of Career Readiness and Competencies section, para. 7.).

In their comprehensive examination of on-campus student employment, Burnside et al. (2019) reported that leadership was a consistent professional development topic implemented for enhanced learning within a student employment experience. Among respondents from four-year institutions, 89% indicated leadership was a frequently selected topic for development.

Institutions looking to expand their students' career readiness must understand the depth of campus engagement opportunities that can contribute to development (Fox, 2018). It takes the entire campus to adequately prepare a student for their career (Fox, 2018). As such, student employment should be considered a contributor to career readiness. The student also has a role to play in their development. Fox (2018) claimed self-awareness was as a prerequisite for leadership development, career readiness, and career exploration. Fox (2018) stated, "Students must be self-aware enough to understand the unique value they would bring, while demonstrating learned knowledge, skills, and competencies congruent with employer expectations" (p. 16). Therefore, in addition to the leadership learned from campus interactions, in order to fully develop as a leader, students must also lead oneself through a process of self-influence (Maykrantz & Houghton, 2020). Based on the seminal work of Charles Manz (1986), self-leadership was coined to supplement existing literature pertaining to employees' self-management and self-influence.

Self-leadership

The concept of self-leadership was founded upon theories of motivation and self-influence. Self-leadership is a self-induced process where an individual is self-motivated and

self-directed resulting in desirable behavior and performance (Houghton & Neck, 2002). Self-leadership literature has broadened over the past several decades, since its inception in 1986 (Houghton & Neck, 2002). There have been attempts to develop questionnaires to measure this concept, among them include the Revised Self-Leadership Questionnaire (RLSQ) which was applied to the present study (Houghton & Neck, 2002).

Though this leadership concept was created to reflect individual employee's intrinsic leadership, self-leadership has also been applied to groups of employees. Stewart et al. (2011) shared that "collective groups of employees are seen as having the capacity to regulate their behavior internally" (p. 186). Therefore, the concept of self-leadership can be applied at both an individual and organizational level. Self-leadership is grouped into three categories: behavior-focused strategies, natural reward strategies, and constructive thought strategies (Houghton et al., 2003; Neck & Houghton, 2006).

Behavior-focused Strategies. When employees engage in essential yet undesirable tasks, they apply behavior-focused strategies to successfully execute job demands. Behavior-focused strategies support self-awareness and cultivate behavioral management (Andressen et al., 2011). This self-leadership category aims to provide specific techniques for recognizing destructive behaviors and replacing them with constructive actions (Houghton et al., 2012). This happens through self-observation, self-goal setting, self-reward, self-correcting feedback, and self-cueing (Houghton et al., 2012; Houghton & Neck, 2002).

Self-observation requires the employee to reflect on and identify behaviors that should be altered, enhanced, or eradicated (Houghton et al., 2012; Houghton & Neck, 2002); whereas, self-goal setting requires the development and implementation of goals and associated rewards. Goals setting motivates and directs critical performance behaviors (Houghton et al., 2012). Self-reward

reinforces goal attainment and contributes to workplace performance. Self-reward can be any number of benefits, such as a nice meal or acts of self-care, identified by the employee and attained once the goal is accomplished (Houghton & Neck, 2002). Another behavior-focused strategy is self-correction. By reflecting and examining personal challenges, failures, and productivity, an employee can make an effort to reform their behaviors, leading to positive outcomes. This internal reflection should not result in self-punishment, however, which could be detrimental to the employee; self-punishment often results from intensified self-correction and unrealistic personal criticism (Houghton et al., 2012). Lastly, self-cueing is a means for executing undesirable tasks. Employees that rely on behavior-focused strategies that prompt action or goal attainment can support workplace success. Examples of self-cueing behaviors include written lists, inspirational quotes in the person's workplace, or keeping and displaying a thank you card (Houghton et al., 2012).

Natural Reward Strategies. Natural reward strategies are applied when the task or employment assignment have enjoyable benefits or rewards. These benefits or rewards may lead to enhanced confidence, competence, and self-worth (Houghton et al., 2012). Employees apply natural reward strategies by identifying satisfying components of a task, allowing the assignment to become more enjoyable, or by altering their focus to something more rewarding (Houghton et al., 2012). For example, an employee may shift their attitude towards a taxing assignment by playing music in their workspace to make the task more enjoyable (Houghton & Neck, 2002). Another example of an employee applying a natural reward strategy can be found in employees who choose to find components of their job they really enjoy; an employee who enjoys interaction, for instance, may focus on job features that enables this type of one-on-one engagement (Houghton & Neck, 2002). By applying natural reward strategies, such as these

examples, an employee can enhance their workplace performance through their intentional focus on gratifying aspects of their role or assignment (Houghton & Neck, 2002).

Constructive Thought Strategies. The third self-leadership category is constructive thought strategies. These strategies require the development and preservation of useful, habitual thinking (Houghton & Neck, 2002). Constructive thought strategies allow the employee to alter their mental processes to support the development of positive thoughts and reactions to task assignment (Houghton et al., 2012). Strategies include dismantling debilitating assumptions and beliefs, engaging in self-dialogue, and visualizing successful performance (Houghton et al., 2012; Houghton & Neck, 2002). Houghton and Neck (2002) shared that the development of destructive thoughts often result from being triggered by a difficult or unpleasant situation. Through personal reflection and analysis, employees can pinpoint and address dysfunctional ways of thinking and replace it with more reasonable thoughts (Houghton & Neck, 2002). Similarly, self-talk can be debilitating. Houghton & Neck (2002) defined self-talk as “what we covertly tell ourselves” (p. 674). Self-talk happens internally through personal evaluation, instruction, and reaction (Houghton & Neck, 2002). Pessimistic self-talk correlates with cynical emotion (Houghton et al., 2012). However, employees can learn to repress self-talk through a strengthened self-awareness, allowing for more optimistic and uplifting inner dialogue to guide behavior (Houghton & Neck, 2002). The final constructive thought strategy is visualizing successful performance. Constructive mental imagery allows an employee to visualize their performance before taking on a task. This type of positive rehearsal makes successful outcomes more likely compared to employees who visualize failure (Houghton & Neck, 2002).

These three self-leadership strategies assist employees with applying behaviors that result in desirable performance. While an employee’s growth may be supported by a positional

leader (or campus supervisor), the employee's actions are ultimately within their own control (Stewart et al., 2011). Lewis (2019) suggested that institutions looking to enhance student employees' leadership development must consider a wide range of activities and tasks that engage students and refine leadership behaviors. In addition to interpersonal activities and tasks, Lewis (2019) suggested intrapersonal, structured opportunities for growth, such as reflection. Metacognitive reflection provides student employees with the opportunity to develop their self-awareness, and self-awareness is critical to leadership development (Fox, 2018; Hansen, 2019). Astin and Astin (2000) asserted leadership development should be a significant part of the college experience. Furthermore, stronger emphasis is being placed on the understanding that leadership can be a learned or taught skill (Higher Education Research Institute [HERI], 1996; Parks, 2005). Having reviewed both learning and leadership as it relates to student employment, literature on the relationship between learning and leadership will now be reviewed.

Learning and Leadership

Leadership and learning are important components of the student employment experience. Each element is central to developing students' potential to serve the institution alongside prepare for a professional career. Furthermore, leadership is needed across all industries at all levels (Heslin et al., 2017). The necessity for effective leadership has made it vital to understand how to develop quality leaders (Heslin et al., 2017). Osteen and Coburn (2012) suggested that learning leadership is the primary purpose of higher education.

Learning and leadership are "inextricably intertwined" (Peck & Callahan, 2019, p. 12). While aptitude, intellect, and character may influence leadership effectiveness, leadership development progresses over time (Heslin et al., 2017). Educators can intentionally design environments that integrate learning, competency development, and life experience in

meaningful ways that contribute to leadership development (Heslin et al., 2017). Campus employment is an example of this type of environment (Peck & Callahan, 2019). It can be constructed and applied to foster leadership-learning (Peck & Callahan, 2019). While campus employment is a learning environment which fosters leadership, literature on the relationship between learning and leadership within higher education is predominantly focused on academic environments. Dunn et al. (2019), however, acknowledged that leadership is not exclusive to the classroom and optimal leadership-learning occurs in contexts without the constraints of a formal academic program. This study contributed to this area of research by examining the relationship between learning and leadership within student employment, a learning context outside of the traditional classroom.

Brown and Posner (2001) investigated how learning and leadership may be related among 312 Executive Master's of Business Administration program participants. In an effort to develop leaders, Brown and Posner (2001) noted the importance of creating a workplace environment valuing leadership and learning. The researchers stated, "Leaders must establish direction in relation to the complex challenges and changes in their context, shape a culture that is conducive to that vision, and inspire their people, bringing forth their talents, uniqueness, and energies toward a worthy future" (Brown & Posner, 2001, p. 279).

Their study focused on the relationship between learning and leadership in an effort to best understand the variety of learning strategies used within the workplace and its implications on workplace effectiveness (Brown & Posner, 2001). Participants completed the Learning Tactics Inventory and the Leadership Practices Inventory. The Learning Tactics Inventory, designed by the Center for Creative Leadership, is designed for those interested in improving their learning from an experience (Center for Creative Leadership, 2010). The tool reveals four

scales, including action, thinking, feelings, and accessing others in an effort to address why some excel in the workplace and learn from experience, while others do not. Additionally, this instrument questions how workers can enhance their learning ability from a specific experience (Center for Creative Leadership, 2010). The Leadership Practices Inventory, an assessment designed by Jim Kouzes and Barry Posner, includes both a learner and observer assessment (John Wiley & Sons, Inc., n.d.). Brown and Posner (2001) only applied the learner's self-rated assessment for their study. The self-rater assessment is designed to measure the regularity of the individual's leadership behaviors (John Wiley & Sons, Inc., n.d.). This inventory reveals five sets of behaviors, including challenging the process, inspiring a shared vision, enabling others to act, modeling the way, and encouraging the heart.

The results of Brown and Posner's (2001) analysis of the Executive MBA students' support the claim that learning is related to leadership (Brown & Posner, 2001). They found learners with higher scores, regardless of mode, engaged more often in leadership activities. However, the data had limitations; it was self-reported and the participants were homogenous in organizational backgrounds (Brown & Posner, 2001). Brown and Posner (2001) contributed evidence to support a relationship between learning and leadership. The present study will contribute to this literature by examining this relationship among a different population of university students.

Strong et al. (2013) conducted a study to understand factors which impact the association of leadership styles and self-directed learning levels of 138 undergraduate, senior students in agricultural leadership courses. Designed to explore and better understand factors that impact the linking of leadership and self-directed learning, Strong et al. (2013) revealed a preference toward task-behavior leadership. Furthermore, the results indicated a significant relationship between

task-oriented leadership styles and self-directed learning (Strong et al., 2013). Based on these results, it was recommended that practitioners gain a better understanding of the variables that impact students' leadership styles in an effort to best prepare them for their future careers (Strong et al., 2013). Continued study would advance practitioners' knowledge of difference in leadership styles, and it would allow educational institutions an opportunity to better develop students to meet global demands (Strong et al., 2013). This recommendation supports the current study. By identifying student employees' leadership behaviors, institutions will create a stronger understanding of the impact of employment type on both leadership and learning, and furthermore, develop more intentional training to best support students and prepare them for the demands of post-graduation careers.

These two studies provide evidence of a relationship between learning and leadership (Brown & Posner, 2001; Strong et al., 2013). However, the studies have been limited to participants concentrated in formal academic programs and learning environments. Other variables that could potentially impact this relationship, such as an on-campus job, should be examined to add to the existing literature.

Summary

This chapter introduced previous studies relevant to this research which guided the development of the research questions. In summary, there are gaps in literature detailing the characteristics, learning, and leadership of student employees. Research on student employment often focused on academic performance and/or hours worked (Grant et al., 2005; Kyte, 2017; Logan et al., 2016; Pike et al., 2008; Wenz & Yu, 2010). These studies did not investigate outcomes associated to learning or leadership. Four studies were reviewed that connected student employment to learning (Athas et al., 2013; Bentrin et al., 2013; Burnside et al., 2019; Hall,

2013). However, these studies were limited to participants engaging in student employment through university divisions of student affairs (Athas et al., 2013; Bentrin et al., 2013; Burnside et al., 2019; Hall, 2013). There was a gap in literature on student employee learning by employment type or in institutional units outside of student affairs. This study contributed to this gap by including participants employed across the entire institution. The study was not limited to a singular division, department, or employment type.

Studies were also reviewed that examined leadership. However, some of the research broadly assessed all students across campus (Dugan & Komives, 2006; Haber et al., 2009). The studies that were specific to certain populations of college students either focused on a specific campus unit or unique populations, such as campus recreation or first-year students (Salisbury et al., 2012; Tingle et al., 2013). Thus, there was a gap in literature on student employees' leadership. The literature was limited to broad generalizations of all students, or very specific groups of employees or student demographics. This study contributed to this gap by determining the leadership behaviors of student employees based upon seven different employment types.

Moreover, two studies were introduced that suggested a relationship between learning and leadership (Brown & Posner, 2001; Strong et al., 2013). However, neither study examined the learning and leadership of student employees. Rather, the studies' participants were concentrated in formal academic programs and learning environments (Brown & Posner, 2001; Strong et al., 2013). The relationship between learning and leadership among undergraduate student employees was examined in this study to add to the existing literature. These additions to the literature will contribute to the existing knowledge base on the impact of student employment and aid institutions designing employment experiences to foster learning and leadership.

Lastly, the literature reviewed in Chapter 2 supported the development of the present study. The literature warranted consideration of student employees as adult learners. This was evidenced by the review of adult learner assumptions and its association to the prominent adult learning theory, transformational learning, which served as a guiding learning framework for this research. Chapter 2 connected concepts of learning to development and skill attainment, and introduced the SEOS. The chapter additionally provided supportive information on self-leadership and the RLSQ. Having reviewed existing literature that supports this research topic, Chapter 3 will now introduce the present study's methods.

Chapter 3

Methods

Chapter 3 describes methods used for the purpose of this study, including a review of the sample, instrumentation, collection process, and data analysis. The purpose of this study was to explore student employees' holistic learning and leadership behaviors based upon their employment type, as well as explore whether a relationship exists between developmental outcomes and self-leadership among this population of university students. Participants were collegiate students engaged in on-campus, part-time employment while working to attain a bachelor's degree, and their employment type was the job assignment or learning context in which they experienced campus employment. Holistic learning was addressed by identifying the comprehensive and transformative outcomes that integrated academic learning and student development through their employment role (King & Baxter Magolda, 2011; NASPA & ACPA, 2004), and the employees' self-leadership was identified through reflection on behaviors that resulted from self-motivation and self-direction (Houghton & Neck, 2002).

I applied a quantitative, correlational research study to investigate the student employees' learning outcomes and leadership behaviors. This research should supplement existing training and development practices to best support the learner's career readiness and the institution's workforce development. I designed the research questions to contribute to the existing literature on collegiate leadership and learning by specifically focusing on undergraduate student employees and their employment type. In order to respond to the research questions, I reviewed the literature, selected materials and the sample, and collected and analyzed data.

Research Questions

This study examined the following questions:

1. Are there significant differences in learning outcomes of student employees based upon their type of employment?
2. Are there significant differences in the leadership behaviors of student employees based upon their type of employment?
3. What is the relationship between student employees' learning and leadership behaviors?

Sample

The sample population used for study included 380 students enrolled at a large, southeastern, public university. The targeted population was undergraduate student employees. An undergraduate student employee is an enrolled student pursuing a baccalaureate with either a work-study assignment, determined by their financial aid status, or an on-campus, hourly-paid position. Student employees serve the institution across a variety of operational tasks. Students engaged in off-campus employment were not included in the sample population due to a focus on student learning and development.

The host university's Office of Institutional Research (OIR) generated a list of 4,529 eligible participants. Participation was voluntary. OIR emailed eligible participants using the survey email approved by the Institutional Review Board. OIR sent four emails, modeling the Tailored Design Method, to enhance completion rates (Dillman et al., 2014). However, of the 4,529 eligible participants, only 380 participated. This was an 8% response rate ($n = 380$). The response rate was likely attenuated by operational changes due to the COVID-19 pandemic. The

pandemic impacted the survey distribution timeline. Surveys were distributed amid campus closures and remote or furloughed work environments.

Descriptive statistics of the sample, reporting on measures of central tendency, are provided in Chapter 4. Additionally, Chapter 4 provides frequency tables to report participants' gender identity, classification, and employment type. In addition, the mean scores are reported for the SEOS' five developmental categories and the RSLQ's leadership strategies.

Materials

This study used a demographic questionnaire and two instruments for data collection. The Student Employee Outcomes Survey (SEOS; Athas et al., 2013) determined participants' co-curricular learning and development resulting from their employment role, while the Revised Self-Leadership Questionnaire (RLSQ; Houghton & Neck, 2002) determined leadership behaviors. This section of Chapter 3 includes a review of the properties and measures associated to each of these materials. Participants were projected to spend twelve minutes completing the survey, based on the predicted duration provided by Qualtrics® (<https://www.qualtrics.com>). Participants were allowed to take the survey on their own time through an electronic link that was provided in the email request by OIR to participate in the study.

Demographic Questionnaire

The first four questions of the survey were designed to gather demographic information from the participants. The four questions associated to the demographic questionnaire included questions to gauge participants' age, gender identity, academic classification, and employment type. The seven categorical employment types included in this research study were campus recreation, mentorship/tutoring, clerical/administrative, facilities/maintenance, dining/food services, technology, and research. Participants self-selected their employment type based on

these options. The survey item associated with employment type asked the participant to select the type that most closely aligned with their current role.

If the participant worked more than one campus employment position, they were asked to select the type that aligned with the job in which they work the most hours. The amount of physical and psychological time spent in a campus experience contributes to learning and development, according to Astin's (1999) student involvement theory. Astin (1999) stated, "The amount of student learning and personal development associated with any educational program is directly proportional to the quality and quantity of student involvement in that program" (p. 519). Therefore, if a student was engaged in two on-campus jobs, the job which required the greatest number of working hours most likely was a stronger contributor to the student's development.

Student Employee Outcomes Survey

The SEOS consists of 45 items which gauge the participants' perceived influence of the employment experience on developmental outcomes (Athas et al., 2013). Five developmental categories are assessed including interpersonal skills, personal wellness awareness, practical skill acquisition, academic self-efficacy, and self-awareness. Furthermore, there are three attributes which measure civic involvement and are predictors of development. These civic involvement attributes include community involvement, civic engagement, and cultural competency (Athas et al., 2013). Eighteen questions are associated with interpersonal skills. Nine items associated to personal wellness. Four questions were associated to practical skill acquisition, academic self-efficacy, and self-awareness. Additionally, two items were associated to each of the civic involvement scales (Athas et al., 2013). Together, these scales comprise the 45 items that make up the SEOS. For the purpose of this study, civic involvement scales were not included in the analysis. The original survey used civic involvement as a predictor of learning, not an outcome

of learning; thus, these questions were not relevant to this study. After removing the civic involvement scales, 39 items remained for this section of the survey.

Employment influence is identified through use of a Likert scale which participants select a score from one (not at all) to six (greatly). Each item begins with the stem, “My experience as a student employee has...” (Athas et al., 2013, p. 58). This stem is applied to maintain answers relevant to the employment experience and reduce the likelihood of confounding by maturation (Athas et al., 2013). The SEOS was reviewed before being administered for the first time in 2013 for face validity by an expert panel (Athas et al., 2013). The panel was comprised of professionals specializing in career readiness, higher education, counseling, student wellness, and human resources (Athas et al., 2013). In an effort to reduce the data into summated scales, the authors conducted a principal component analysis (PCA). The emerging components are the five scales that are representative of the developmental categories. Athas et al. (2013) then conducted a regression analysis to determine trends among variables.

The five developmental categories (see Table 1) were the only subscales used to respond to the first and third research questions related to learning. I calculated the reliability of each subscale which showed acceptable score reliability. Scale reliabilities (Cronbach’s alpha) were .97 (interpersonal skills), .94 (personal wellness awareness), .87 (practical skill acquisition), .85 (academic self-efficacy), and .89 (self-awareness).

Table 1*Student Employee Outcomes Survey Developmental Categories and Constructs*

Developmental Category	Constructs
Interpersonal skills	Improved my ability to admit mistakes Consider repercussions of actions Ability to think before acting Ability to communicate effectively Ability to resolve conflict respectfully Ability to express thoughts/opinions clearly Ability to weigh different perspectives Ability to comfortably interact with others Ability to work as part of a team Made more approachable Ability to take initiative Ability to take direction/follow instructions Improved critical thinking skills Made more tolerant person Ability to remain focused on individual tasks Ability to provide constructive criticism Increased attention to detail Helped to learn patience
Personal wellness awareness	Ability to make timely decisions Transitioned into more productive lifestyle Helped better manage money Made more self-sufficient Improved work-life balance Improved time management skills Made more responsible in everyday actions More dependable person Improved organizational skills
Practical skill acquisition	Allowed to acquire new skills Helped to realize greater potential in self Introduced to skills didn't know I had Pushed me beyond what I thought to be my capabilities
Academic self-efficacy	Motivated pursuit of a higher level of education Solidify career goals Increased motivation to work on academics Clarify academic goals
Self-awareness	Helped to solidify values Helped to develop a better understanding of self Helped add value to life Gave greater sense of purpose

Note. SEOS developmental categories and constructs from Athas et al. (2013).

Revised Self-Leadership Questionnaire

The RSLQ gauged participants' leadership behaviors. The RSLQ is comprised of 35 items that are representative of the three categories of self-leadership: behavior-focused, natural rewards, and constructive thought (Houghton & Neck, 2002). These primary categories are made up of nine subscales (see Table 2).

Participants self-assessed how true a behavioral or skill-based leadership statement was using a Likert scale ranging from one (not at all accurate) to five (completely accurate) providing for continuous data for analysis. Houghton and Neck (2002) tested scale reliability and construct validity by collecting data from two independent samples of student participants using the RSLQ. The researchers claimed that the tool is an "acceptable measure of self-leadership skills and behaviors" (Houghton & Neck, 2002, p. 685). Houghton and Neck (2002) found each of the nine subscales of the RSLQ to have coefficient alphas (α) greater than .70 (visualizing successful performance, $\alpha = .85$; self-goal setting, $\alpha = .84$; self-talk, $\alpha = .92$; self-reward, $\alpha = .93$; evaluating beliefs and assumptions, $\alpha = .78$; self-punishment, $\alpha = .86$; self-observation, $\alpha = .82$; natural rewards, $\alpha = .74$; and self-cueing, $\alpha = .91$). A .70 value for alpha is considered a "sufficient measure of reliability" (Taber, 2018, p. 1293). I calculated the reliability coefficients in the present sample. Seven of the subscales' scores had Cronbach's alphas greater than .70 (visualizing successful performance, $\alpha = .82$; self-goal setting, $\alpha = .78$; self-talk, $\alpha = .84$; self-reward, $\alpha = .90$; evaluating beliefs and assumptions, $\alpha = .72$; self-punishment, $\alpha = .79$ and self-cueing, $\alpha = .84$). However, two of the scales showed poor score reliability (self-observation, $\alpha = .68$; natural rewards, $\alpha = .67$). These scores' poor reliability is a limitation to this study.

Houghton and Neck (2002) also interpreted the scores' construct validity through a confirmatory

factor analysis. They found the measures of the RSLQ harmonious with the specifications of the self-leadership theory (Houghton & Neck, 2002).

Table 2

Revised Self-Leadership Questionnaire Categories and Subscales

Category	Subscale
Behavior-focused strategies	Self-goal setting Self-reward Self-punishment Self-observation Self-cueing
Natural reward strategies	Focusing thoughts on natural rewards
Constructive thought strategies	Visualizing successful performance Self-talk Evaluating beliefs and assumptions

Note. RLSQ categories and subscales from Houghton and Neck (2002)

Data Collection

To support the participants' ease of use in hopes of increasing the response rate, I combined the three surveys into one questionnaire using the Qualtrics® platform (<https://www.qualtrics.com>). Additionally, in an effort to increase the response rate, the participant had the optional opportunity, after completing the survey, to electronically reroute to an online form, not associated to the primary survey, to submit their name and email for entry to win a one of four \$25.00 Amazon gift cards. This was optional and not required, yet hoped to enhance response rate to the survey (Dillman et al., 2014).

Data Analysis

Three research questions were addressed through this study. The first two questions were similar, yet distinct. Each of these questions examined significant differences in learning or

leadership of the student employee based on their self-selected employment type. I applied a multivariate analysis of variance (MANOVA) to these two questions to reflect any significant differences. I selected a MANOVA due to its ability to analyze multiple, continuous dependent variables. Depending on the research question, the dependent variables were the developmental outcomes or leadership behaviors, and the independent variable was the categorical type of employment (see Table 3).

Table 3

Independent and Dependent Variables for Research Questions 1 and 2

Research Question	Independent Variable	Dependent Variables
Q1. Are there significant differences in learning outcomes of student employees based upon their type of employment?	Employment type	Interpersonal skills, personal wellness awareness, practical skill acquisition, academic self-efficacy, and self-awareness
Q2. Are there significant differences in the leadership behaviors of student employees based upon their type of employment?	Employment type	Behavior-focused strategies, natural reward strategies, constructive through strategies

MANOVA

In this study, a MANOVA was conducted in response to the first two research questions which seek to determine the relationship between employment type and the variables of learning outcomes or leadership behaviors. The MANOVA applies to scenarios consisting of two or more dependent variables (Warne, 2014). Researchers which apply multiple ANOVAs to discern significance when there are multiple dependent variables increase the probability of a Type I error (Warne, 2014).

The independent variable applied for this analysis test was the employment type (campus recreation, mentorship/tutoring, clerical/administrative, facilities/maintenance, dining/food services, technology, or research). To address the first research question focused on learning, the dependent variables are the five developmental categories of the SEOS (interpersonal skills, personal wellness awareness, practical skill acquisition, academic self-efficacy, and self-awareness). To address the second research question focused on leadership, the dependent variables are the three categories of the RSLQ (behavior-focused strategies, natural reward strategies, and constructive thought strategies).

I sampled undergraduate student employees through application of an online survey which assessed learning and developmental outcomes, leadership behaviors and skills, and employment type. In particular, I was interested in whether employment type predicts higher levels of self-perceived learning and self-leadership behaviors and skills. The null hypothesis in this analysis, therefore, is that a student's employment type has no effect on self-perceived learning or self-leadership. In the dataset, the employment type (independent variable) was represented categorically, with seven nominal values. The five learning outcomes (dependent variables for Research Question 1) are presented as continuous data based on a response to a six-point Likert scale. The nine self-leadership behaviors and skills (dependent variables for Research Question 2) are also presented as continuous data based on the participant's response to a five-point Likert scale. I calculated and reported Cronbach's alpha coefficient for internal consistency reliability of the scales' scores. To test for homogeneity of variance-covariance, I applied the Box's *M* test with *M* being significant at level .001 (Mertler & Vannatta, 2005). I used the multivariate statistic, Wilks' *Lambda*, and set Type I error rate at .050. This test determines if there are differences between groups across a set of dependent variables. However,

it does not indicate where the differences are between the groups, only that difference exists. In the event of a significant result, I applied a one-way ANOVA.

Canonical Correlation Analysis

I used a canonical correlation analysis (CCA) to address the third research question which explored the relationship between learning outcomes and leadership behaviors. This multivariate analysis of correlation was selected due to its ability to explore the relationships between two multivariate sets of variables. The two sets of variables in use for this study are the five categories of development as identified through the SEOS and the three categories of self-leadership as reported through the RLSQ.

The canonical correlation has two sets of variables with no directionality; it produces two sets of linear combinations (or canonical functions) resulting from each of the two sets of variables. To explore the potential association between the variables, I entered a syntax command into SPSS. The test applied for significance was Wilks' *Lambda* with Type I error rate at .050, and the effect size was also interpreted (Sherry & Henson, 2005). This test assessed the overall association of the two variable sets. Furthermore, each canonical correlate was also tested for significance, and significant correlates were interpreted.

In summary, I scored the survey using the instruments' scoring guides, and the IBM software, SPSS (<https://www.ibm.com/products/spss-statistics>), supported the statistical analysis of the data. Through SPSS, the aforementioned statistical tests including both the MANOVA and CCA were performed on data and then the results were interpreted and reported in Chapter 4.

Summary

Chapter 3 presented the methods used to execute this study. The review comprised of an explanation of the sample as well as the instrumentation. Data collected were compliant with the

Intuition Review Board, and the instruments used were applied after permission was granted to reproduce for the purpose of educational research.

Chapter 4

Results

The purpose of this study was to identify student employees' holistic learning and self-leadership based upon their type of employment, as well as explore whether a relationship exists between developmental learning outcomes and self-leadership among this population of college students. This study utilized student employees' self-reported data through completion of a demographic questionnaire, the SEOS, and the RSLQ, as outlined in Chapter 3. The fourth chapter provides an overview of the data analysis and results. Three research questions were addressed. The first and second research question examined the relationship between learning or leadership and employment type. These two questions were analyzed through the application of a MANOVA. The third research question, which examined the relationship between learning and leadership, was analyzed using a CCA.

Participant Demographics

Data collected through the demographic questionnaire was used to analyze the participants' age, gender identify, classification, and employment type. Participant age is reflected through the application of descriptive statistics, reporting on measures of central tendency (See Table 4) and frequency (See Table 5). Participants were between the ages of 18 and 29, as self-reported through the demographic questionnaire (See Table 5). More than 50% of participants were 20 or 21 years old (See Table 5).

Table 4*Descriptive Statistics of Participant Age*

	Age
<i>M</i>	20.8
<i>SD</i>	1.39

Note. Participants' minimum age was 18 and the maximum age was 29 ($n = 380$).

Table 5*Age by Frequency and Percentage of Sample ($n = 380$)*

Age	Frequency	%
18	13	3.4
19	40	10.5
20	106	27.9
21	112	29.5
22	80	21.1
23	18	4.7
24	7	1.8
25-29	4	1.1

Participants self-reported which employment type (campus recreation, mentorship/tutoring, clerical/administrative, facilities/maintenance, dining/food services, technology, and research) most closely aligned with their campus role. Only five participants reported employment in the dining/food services category. Due to the low response for this employment type, this type and associated participant scores were omitted from this study. Of the remaining six employment types, clerical/administrative jobs were the largest percentage of participants' type, accounting for 24.7% of participants (See Table 6).

Table 6*Employment Type by Frequency and Percentage of Sample (n = 380)*

Employment Type	Frequency	%
Facilities/Maintenance	34	8.9
Technology	46	12.1
Research	61	16.1
Campus Recreation	70	18.4
Mentorship/Tutoring	75	19.7
Clerical/Administrative	94	24.7

A frequency table was applied to assess participants' gender identity and classification by employment type (See Table 7). The frequency of the full sample is listed in the last column. Seniors participated in the study at higher rates, comprising 59.7% of participants, compared to other academic classifications (See Table 7). Among the four classifications, freshman most frequently worked in campus recreation. However, sophomores', juniors', and seniors' most frequent employment type was clerical/administrative. Furthermore, women accounted for more than half of the participants (See Table 7). However, their most frequent job type was mentorship/tutoring, whereas men reported technology as the most frequent job type.

Table 7*Demographic Characteristics of Participants by Employment Type*

Characteristic	Employment Type							Full Sample
	Campus Rec.	Clerical/ Admin.	Facilities/ Maintenance	Mentorship/ Tutoring	Research	Tech.		
Classification								
Freshman	3	1	1	1	0	1	7	
Sophomore	5	12	6	5	7	7	42	
Junior	16	27	8	24	15	14	104	
Senior	46	54	19	45	39	24	227	
Gender								
Man	21	16	16	19	20	22	114	
Woman	48	78	18	56	41	23	264	
DNR	1	0	0	0	0	1	2	

Note. Four participants' gender was not reported due to count being less than 5. $n = 380$

Research Question 1

To address the first research question, I evaluated learning outcomes based upon the student employees' self-selected employment type. A MANOVA was applied to reflect any significant differences. The dependent variables were the five SEOS developmental outcomes (interpersonal skills, personal wellness awareness, practical skill acquisition, and academic self-efficacy), and the independent variable was the categorical type of employment.

The mean scores were reported for the SEOS' five developmental categories (See Table 8). Scores were consistently low, with no developmental category receiving a mean score higher than three. These scores were based on a Likert scale from one (not at all) to six (greatly). Academic self-efficacy was the highest rated developmental category, while interpersonal skills received the lowest self-reported scores (See Table 8). Mean scores were then assessed by

employment type (See Table 9). Academic self-efficacy was the highest rated category of development for four of the six employment types (campus recreation, clerical/administrative, facilities/maintenance, and mentorship tutoring).

Table 8

SEOS Mean Scores

	Interpersonal Skills	Personal Wellness Awareness	Practical Skill Acquisition	Academic Self-Efficacy	Self-Awareness
<i>M</i>	2.17	2.24	2.24	2.72	2.57
<i>SD</i>	1.05	1.10	1.20	1.29	1.25

Note. Based on a Likert scale which participants selected a score from one (not at all) to six (greatly) (Athas et al., 2013).

Table 9

SEOS Descriptive Statistics by Dependent Variable and Employment Type

Dependent Variable	Employment Type					
	Campus Rec.	Clerical/ Admin.	Facilities/ Maint.	Mentor./ Tutoring	Research	Tech
	<i>M(SD)</i>	<i>M(SD)</i>	<i>M(SD)</i>	<i>M(SD)</i>	<i>M(SD)</i>	<i>M(SD)</i>
Interpersonal Skills	1.90(.92)	2.23(1.10)	2.18(1.10)	2.07 (.98)	2.33 (1.01)	2.39 (1.23)
Personal Well. Awareness	2.06(1.07)	2.17(1.10)	2.37(1.21)	2.26(1.09)	2.42(1.09)	2.28(1.13)
Practical Skill Acquisition	2.16(1.26)	2.34(1.20)	2.41(1.31)	2.12(1.08)	2.11(1.10)	2.35(1.29)
Academic Self-Efficacy	2.87(1.17)	2.70(1.25)	2.81(1.45)	2.65(1.31)	2.55(1.26)	2.80(1.47)
Self-Awareness	2.37(1.23)	2.59(1.21)	2.65(1.46)	2.50(1.20)	2.67(1.21)	2.74(1.39)

Note. Based on Likert scale which participants select a score from one (not at all) to six (greatly) (Athas et al., 2013). Standard deviation is represented in parenthesis.

I used a one-way MANOVA to determine if there was a significant difference in student employees' learning outcomes based upon their employment type. The dependent variables were measured at the interval level. The assumption of random sampling was met due to self-selection through the survey's email distribution. The 380 participants were comprised of intact groups, based upon their employment type, with other variables that could have impacted their learning. I produced univariate normality tests to test for multivariate normality. Interpersonal skills was positively skewed ($skew = 1.111, SE_{skew} = .125$) and leptokurtic ($kurtosis = .784, SE_{kurtosis} = .250$). Personal wellness awareness was positively skewed ($skew = .986, SE_{skew} = .125$). Practical skill acquisition was positively skewed ($skew = .887, SE_{skew} = .125$). Academic self-efficacy was positively skewed ($skew = .457, SE_{skew} = .125$) and platykurtic ($kurtosis = -.600, SE_{kurtosis} = .250$). Self-Awareness was positively skewed ($skew = .494, SE_{skew} = .125$) and platykurtic ($kurtosis = -.714, SE_{kurtosis} = .250$). Furthermore, the assumption of homogeneity of covariance matrices, determined by Box's M , was not met ($F_{75, 119603.421} = 1.1545, p = .002$). The heterogeneity of covariance matrices may have attenuated the effects.

There was significant difference in learning based on the employment type ($\Lambda = .815, F_{25, 1375.991} = 2.865, p < .001$). Nineteen percent of the variance in learning was explained by employment type ($\omega^2 = .185$). To follow-up on the significant multivariate test, I applied a one-way ANOVA. To control for familywise error, I used the Bonferonni adjustment, setting experimentwise alpha at .01. However, there was no significant difference in interpersonal skills ($F_{5, 374} = 1.792, p = .114$), personal wellness awareness ($F_{5, 374} = .889, p = .489$), practical skill acquisition ($F_{5, 374} = .713, p = .614$), academic self-efficacy ($F_{5, 374} = .530, p = .753$), or self-awareness ($F_{5, 374} = .662, p = .653$).

Research Question 2

To address the second research question, I evaluated self-leadership behaviors based upon the student employees' self-selected employment type. A MANOVA was applied to reflect any significant differences. The dependent variables were the three self-leadership behaviors assessed through the RSLQ, including behavior-focused strategies, natural reward strategies, and constructive thought strategies. The independent variable was the categorical type of employment. Using the participants' responses to the associated constructs, the means were used to report each of the three self-leadership behaviors (See Table 10). Natural reward was the highest scoring behavior, followed by behavior-focused behaviors. Mean scores were then assessed by employment type (See Table 11). Natural reward was the highest rated self-leadership behavior for all employment types.

Table 10

RSLQ Descriptive Statistics by Dependent Variable

Dependent Variables and Constructs	<i>M</i>	<i>SD</i>
Behavior-Focused	3.95	0.55
Self-goal settings	4.10	0.69
Self-reward	3.67	1.10
Self-punishment	3.98	0.81
Self-observation	4.20	0.59
Self-cueing	3.86	1.17
Natural Reward	4.03	0.62
Constructive Thought	3.70	0.69
Visualizing successful performance	3.57	0.91
Self-talk	3.76	1.15
Evaluating beliefs and assumptions	3.78	0.74

Note. Based on Likert scale which participants select a score from one (not at all accurate) to five (completely accurate) (Houghton & Neck, 2002).

Table 11*RLSQ Descriptive Statistics by Dependent Variable and Employment Type*

Dependent Variable	Employment Type					
	Campus Rec.	Clerical/ Admin.	Facilities/ Maint.	Mentorship/ Tutoring	Research	Tech.
	<i>M(SD)</i>	<i>M(SD)</i>	<i>M(SD)</i>	<i>M(SD)</i>	<i>M(SD)</i>	<i>M(SD)</i>
Behavior-Focused	3.94(.58)	3.98(.54)	3.93(.56)	4.04(.54)	3.87(.55)	3.91(.55)
Natural Reward	4.13(.60)	4.05(.58)	4.09(.71)	4.06(.56)	3.88(.75)	3.9(.52)
Constructive Thought	3.66(.78)	3.76(.69)	3.84(.65)	3.74(.66)	3.60(.70)	3.61(.63)

Table 11. Based on Likert scale which participants select a score from one (not at all accurate) to five (completely accurate) (Houghton & Neck, 2002). Standard deviation is represented in parenthesis.

I used a one-way MANOVA to determine if there was a significant difference in student employees' self-leadership behaviors based upon their employment type. The dependent variables were measured at the interval level. The assumption of random sampling was met due to self-selection through the survey's email distribution. The 380 participants were comprised of intact groups, based upon their employment type, with other variables that could have impacted their leadership behaviors. I produced univariate normality tests to test for the assumption of multivariate normality. Behavior-focused was negatively skewed ($skew = -.441$, $SE_{skew} = .125$) Natural reward was negatively skewed ($skew = -.732$, $SE_{skew} = .125$), and constructive thought was negatively skewed ($skew = -.483$, $SE_{skew} = .125$). The assumption of homogeneity of covariance matrices was met ($F_{30,152353.924} = 1.156$, $p = .195$). However, there was no significant difference in leadership based on the employment type ($\Lambda = .964$, $F_{15, 1027.330} = .985$, $p = .533$). Only four percent of the variance in leadership behaviors was explained by employment type ($\omega^2 = .036$).

Research Question 3

I used canonical correlation analysis to explore how student employees' self-leadership strategies (behavior-focused, natural reward, and constructive thought) would be related to the set of learning variables (interpersonal skills, personal wellness awareness, practical skill acquisition, academic self-efficacy, and self-awareness).

Five variables were included in the CCA representing student employees' learning and development. Three variables represented the participants' self-leadership. Relationships were theoretically linear. There were three correlates, and the sample size ($n = 380$) represented more than 70 participants per correlate. I produced univariate normality tests to assess the assumption of normality. There was a pattern of non-normality. Interpersonal skills was positively skewed ($skew = 1.124$, $SE_{skew} = .126$) and leptokurtic ($kurtosis = .789$, $SE_{kurtosis} = .251$). Personal wellness awareness was positively skewed ($skew = 1.006$, $SE_{skew} = .126$). Practical skill acquisition was also positively skewed ($skew = .905$, $SE_{skew} = .126$). Academic self-efficacy was positively skewed ($skew = .466$, $SE_{skew} = .126$) and platykurtic ($kurtosis = -.576$, $SE_{kurtosis} = .251$). Self-awareness was positively skewed ($skew = .496$, $SE_{skew} = .126$) and platykurtic ($kurtosis = -.701$, $SE_{kurtosis} = .251$). Behavior-focused was negatively skewed ($skew = -.441$, $SE_{skew} = .126$). Natural reward was negatively skewed ($skew = -.744$, $SE_{skew} = .126$), and constructive thought was also negatively skewed ($skew = -.478$, $SE_{skew} = .126$).

The full canonical correlation model was statistically significant ($\Lambda = .808$, $F_{15,1016.29} = 5.432$, $p < .001$). The overall model explained about 19% of the variance in the set of variables ($R^2 = .192$). The analysis yielded three functions. The first function accounted for about 82% of the explained variance and was statistically significant ($F_{15,1016.29} = 5.432$, $p < .001$). The second function accounted for about 13% of the explained variance, but it was not statistically

significant ($F_{8,738} = 1.893, p = .058$). The final function accounted for only about 5% of the explained variance and was not statistically significant ($F_{3,370} = 1.332, p = .264$). See Table 12 for the results of the eigenanalysis. Based on these results, I determined that the first function should be interpreted. Function 1 appeared to capture a negative association. Personal wellness awareness and self-awareness were negatively associated with behavior-focused and natural reward strategies. See Table 13 for the coefficients for each variable for the interpreted function. These results suggest that student employees' with higher personal wellness awareness and self-awareness are likely to be lower in behavior-focused and natural reward leadership behaviors.

Table 12

Canonical Correlations and Eigenvalues for Each Function

Number	Eigenvalue	% Var.	Cum. % Var.	R_C	R_C^2
1	.188	82.051	82.051	.399	.158
2	.030	13.238	95.288	.172	.029
3	.011	4.712	100.000	.103	.011

Table 13

Standardized Canonical Coefficients and Zero-Order Correlations for Predictor and Criterion Variables for Interpreted Canonical Function (Function 1)

Variable	Function 1		
	Coefficient	r_s	r_s^2
Interpersonal Skills	.389	-.858	.736
Personal Wellness Awareness	-.879	-.931	.867
Practical Skill Acquisition	.160	-.801	.642
Academic Self-Efficacy	.154	-.744	.554
Self-Awareness	-.811	-.936	.876
Behavior-Focused	.521	.806	.650
Natural Reward	.669	.890	.792
Constructive Thought	-.030	.487	.237

Summary

Chapter 4 presented the results of the analysis conducted to address the proposed research questions. Data was self-reported by student employees through completion of a demographic questionnaire, the SEOS, and the RLSQ. The results in response to the first research question initially showed a significant difference in learning based on the employment type. However, the follow up statistical tests did not result in significance. The second research question aimed to discover any significant differences in leadership behaviors and employment type. However, the data did not yield any significant difference. The final research question focused on the relationship between learning and leadership. Prior research suggested a relationship between these two concepts. However, a relationship had not been explored among undergraduate student

employees. The results of this study demonstrated a relationship between learning and leadership. In particular, personal wellness awareness and self-awareness demonstrated a negative relationship with behavior-focused and natural reward leadership behaviors. Chapter 5 will discuss the results and offer interpretation in greater detail. Additionally, Chapter 5 reviews limitations of this study and provides recommendations for future practice and research.

Chapter 5

Conclusions and Implications

The purpose of this study was to identify student employees' holistic learning and self-leadership based upon their type of employment, as well as explore whether a relationship existed between developmental learning outcomes and self-leadership among this population of college students. Chapter 1 introduced the study, presented the research problem, and its purpose. Additionally, it identified three research questions, outlined the study's limitations, and provided definitions of terms. Chapter 2 introduced a review of relevant literature associated to student employment, holistic learning, and self-leadership, and Chapter 3 focused on methods used to assess and analyze the participants. This included an introduction to the sample, a review of the materials and steps taken to collect data, and the method for data analysis. Lastly, Chapter 4 analyzed the data and introduced the results. The final chapter, Chapter 5, will address conclusions, implications, and recommendations for future research.

Research Questions

This study examined the following questions:

1. Are there significant differences in learning outcomes of student employees based upon their type of employment?
2. Are there significant differences in the leadership behaviors of student employees based upon their type of employment?
3. What is the relationship between student employees' learning and leadership behaviors?

Student employment is a co-curricular environment that has the potential to foster learning and holistic growth (Athas et al., 2013; Fede et al., 2018). However, institutions must first recognize this co-curricular experience as a meaningful asset to a students' education and

intentionally design the experience to fully meet its potential. In an effort to supplement literature on student employment and promote a transformative, holistic learning experience, this study examined the relationship between students' employment type and its association to learning outcomes and self-leadership behaviors. Furthermore, this study identified whether a relationship existed between developmental learning outcomes and self-leadership. The results of this study yielded information that contributes to the literature and supports a better understanding of student employment and its impact on students' learning and leadership. The next sections will discuss the results in more detail to provide context for future studies.

Employment Type and Learning

The first research question determined whether there was a significant difference in learning based on the student's employment type. Initially, the results demonstrated a significant difference in learning based on type. However, upon further analysis, the data did not support a significant difference when examining each unique outcome. Though the data was potentially attenuated by the heterogeneity of covariance matrices, the research still supplements the literature by exploring student employment type.

The scores from the SEOS were positively skewed, indicating very low levels of self-reported learning resulting from the employment experience. Participants' self-perceived learning may have been impacted by the COVID-19 pandemic. Because of the pandemic, some students likely began working remotely or were forced to end their employment experience early. These changes in employment potentially contributed to participants' outlook. Furthermore, because the participants were surveyed during the pandemic, it is also plausible that the participants were still being paid for their employment, yet not actually working. For example, work-study students were still eligible to receive payment although the campus had

ceased in-person operations for non-essential student employees. If participants were being paid while not actively contributing to an employment role, this too could have impacted the participant's outlook and response to survey questions. The demographic questionnaire was not designed to capture working conditions relevant to the COVID-19 pandemic. Although the participant's self-perceived learning may have been impacted by these unusual circumstances, it is also possible the participants' experience was not significantly modified or influenced. However, data was not collected to evaluate the participants' actual working conditions as part of this study approval. Consequently, there is no way to determine if these factors contributed to the positive skew. Thus, this is a limitation to the study and may be an area for future research.

The low scores associated to the learning outcomes should be concerning for institutions and higher education professionals that desire to acknowledge campus employment as a co-curricular activity. Learning may be happening through student employment; however, this study seemed to show that student employees do not recognize their learning. As data was self-reported, students may have been unaware or unable to articulate their development through employment. Consequently, institutions may consider designing employment experiences that not only support learning but also assist students in recognizing their development through employment experiences (Burnside et al., 2019). Institutions should also develop and reflect on the learning outcomes associated to the employment experiences assigned to students. The low participant scores may indicate that learning is altogether irrelevant to the student employment experience. While the literature points to employment as a means for development, institutions must intentionally design outcomes and an environment that fosters learning (Burnside et al., 2019).

Furthermore, because the results did not show a significant difference between the outcomes and type of employment, institutions may have more flexibility in the design of training and outcome based experiences for students. Institutions that prefer to train by employment type, may first address the largest employment types on their campus to both integrate and assess the efforts. In this study, each participant self-reported their employment type based on seven predefined options representative of campus operations. The student employment literature has been often limited to employment within divisions of student affairs (Athas et al., 2013; Bentrin et al., 2013; Brunside et al., 2019; Hall, 2013). However, this study tried to gather data from undergraduate students employed in any on-campus employment roles, regardless of division, department, or type. The largest employment type represented was clerical/administrative roles, representing 24.7% of the sample in this study.

The U.S. Bureau of Labor Statistics (2020) stated clerical tasks include answering telephones, typing documents, and filing records. Therefore, a learning outcome that may align with this type of student employment is personal wellness awareness, which is the ability to make timely decisions, improve time management skills, manage money, be dependable and self-sufficient, and improve organizational skills (Athas et al., 2013). Based on this definition, personal wellness awareness supports the tasks assigned to clerical workers. However, personal wellness awareness was the poorest scored learning outcome by clerical/administrative employees among the five learning categories in this study. Training by the institution may help the student connect their learning experiences more broadly (Burnside et al., 2019).

Mentorship/tutoring was the second most selected employment type among the sample. Nearly 20% of participants reported this type as their primary assignment for employment. On average, interpersonal skills was the lowest ranked learning outcome developed through

mentorship/tutoring employees' employment experience. Athas et al. (2013) stated interpersonal skills included the ability to express thoughts clearly, comfortably interact with others, apply patience, and provide constructive criticism. Douglass et al. (2013) supported that good communication was among the most important attributes of a peer mentor. Because this ranking was self-reported, participants that ranked this learning outcome low may not recognize their growth in this area. Alternatively, this may have accurately measured evidence of limited interpersonal skills; a cause for concern, as these skills are needed in any workplace (Sackette & Walmsley, 2014).

The awareness of learning by type can perhaps assist institutions' in identifying potential gaps in learning among certain subsets of student employees through self-assessment techniques (Irwin et al., 2019). Awareness of learning (or the lack of learning by certain types) can guide the development of training programs designed to support co-curricular learning through student employment. However, caution should be taken when trying to generalize the results of this study to another institution's student employment population and curriculum assessment.

Employment Type and Leadership

The second research question examined differences in the leadership behaviors of student employees based upon their employment type. The study did not yield a significant result, as only 4% of the variance in behavior was explained by employment type. Yet, the data supplements the literature as the research literature on leadership and student employment is limited (Correia-Harker & Hall, 2019; Salisbury et al., 2012; Tingle et al., 2013). This study contributed to the literature by determining the leadership behaviors of student employees based upon their employment types.

In this study, participants' self-reported leadership behaviors were categorized as behavior-focused, natural reward, and constructive thought. Due to the lack of significance determined in this study, leadership behaviors were not unique to any specific type of student employment or they are not addressed as part of the employment experience. Institutions should look at the collective results of these self-reported leadership behaviors and equip supervisors with this additional information. In return, supervisors may be able to increase performance of students often assigned menial tasks by helping them develop and apply leadership strategies (Hernandez & Smith, 2019). For example, natural reward strategies generated the highest scores among all employment types in this study. Employees apply natural reward strategies by identifying satisfying components of a task, allowing the assignment to become more enjoyable, or by altering their focus to something more rewarding (Houghton et al., 2012). These benefits or rewards may lead to enhanced confidence, competence, and self-worth, potentially enhancing workplace performance (Houghton & Neck, 2002). Supervisors, who are aware of the benefits of natural reward strategies and the likelihood of student employees making use of these behavioral tendencies, could then enhance performance while also enhancing job satisfaction.

Learning and Leadership

I also explored how student employees' self-leadership strategies (behavior-focused, natural reward, and constructive thought) related to a set of learning variables (interpersonal skills, personal wellness awareness, practical skill acquisition, academic self-efficacy, and self-awareness). The results indicated a statistically significant, negative association between two learning outcomes (personal wellness awareness and self-awareness) and two leadership behaviors (behavior-focused and natural reward). This significant association indicated that student employees' with higher personal wellness awareness and self-awareness are likely to be

lower in behavior-focused and natural reward leadership behaviors. Therefore, it is presumable that students who alter a task or assignment to generate satisfaction or rewards may be less likely to develop intrapersonally. Furthermore, students who seek out an employment role or related task for fun or as a strength-based experience may struggle to develop personal wellness awareness skills such as time management and organization.

However, while the present study pointed to a negative association, theoretically these results were unexpected. Natural reward strategies have led to a heightened sense of purpose, and self-awareness is a learning outcome evidenced by a greater sense of purpose and value in life (Athas et al., 2013; Houghton et al., 2012). These two concepts appear similar, and positive association would have been theoretically plausible. Furthermore, personal wellness awareness and self-awareness closely covaried, as did natural reward and behavior-focused strategies. Natural reward and behavior-focused strategies were not theoretically expected to covary. Natural reward strategies require altered focus to identify rewards, and behavior-focused strategies replace destructive behaviors with constructive actions (Houghton et al., 2012). However, it is theoretically possible that the learning outcomes interacted with one another resulted in the data. Personal wellness awareness is associated with a productive lifestyle through self-sufficiency and organization skills (Athas et al., 2013). Whereas self-awareness adds value to life through understanding of self and establishing a sense of purpose (Athas et al., 2013). Athas et al. (2013) did not address ways in which the outcomes may interact, which was a limitation of this study, which are noted in the next section.

Limitations and Future Research

Student employment is a subject of growing interest among higher education professionals (Burnside et al., 2019; Dunn et al., 2019; Gott, 2019; Lewis, 2019). This study was

designed to contribute the existing literature by examining the holistic development of students engaged in on-campus student employment. However, future research is needed to address the study limitations and build upon this research topic. In addition to the limitations aforementioned, this study had additional limitations pertaining to the participant sample, including student employees' classification and duration of employment, as well other concerns related to the survey's distribution.

The survey's demographic questionnaire collected the participant's age, classification, gender identity, and employment type. The results indicated the participants of this study were predominantly upperclassman students. This result may have been a biased sample due to the COVID-19 pandemic. Junior students accounted for 27% of the sample, while seniors represented nearly 60% of the sample. Sampling bias may have happened due to upperclassman students' ability to navigate and adapt to remote learning during the pandemic as participants were contacted to participate by email. Upperclassman students may have been more likely to check their email due to professional pursuits or heightened awareness to stay engaged virtually during this time of remote learning.

Previous literature supports the idea that senior students are more motivated than first-year students. Bessette et al. (2016) found seniors to experience positive change in motivational factors, such as self-efficacy and intrinsic value, as a result of the college experience. The concept of self-leadership measured in this study was founded upon theories of motivation and self-influence. Self-leadership is a self-induced process where an individual is self-motivated and self-directed resulting in desirable behavior and performance (Houghton & Neck, 2002). Because the RLSQ explored self-leadership behaviors and more than half of the participants were senior students, the data may not be representative of the population. To

address this limitation, further analysis of leadership behaviors of first and second year students by employment type would add to this study's findings and offer insight on differences by type and classification. In addition, future research on first and second year students' interest in student employment as a component of the co-curricular experience may also be of value. A comparative study addressing the demographics during a non-pandemic may prove interesting and provide insight, while also contributing to literature on the impact of the pandemic on student learning and development.

Participants reported low levels of learning through responses to survey questions associated in the SEOS. This was a surprising finding, as the data were self-reported, and social desirability bias was expected to be a limitation to the study; thus learning levels were expected to be reported higher. Bowman and Hill (2011) stated, "Social desirability bias occurs when students overreport desirable attributes and behaviors (for example, college GPA) or underreport undesirable attributes and behaviors (cheating)" (p. 74). Rather than scoring themselves too high, though, participants scored themselves low in this study. This may have been a result of reduced time on the position due to the pandemic, and therefore reduced time to learn. Thus, further analysis of the duration of time spent in the employment role and its impact on learning and leadership may be useful, as well, in future research.

Another limitation that may have affected the results of this study was the timing in which the participants completed the survey. The survey was administered during the COVID-19 pandemic, immediately following the conclusion of the academic year. There were mandatory quarantine requirements during this time, and the host institution was operating remotely. As a result, students' employment positions may have been terminated or furloughed. St. Armour (2020) shared that 40% of college students reported job loss during this time. Terminated

employment may have affected the participants' response to the survey questions. However, participants were not asked to indicate if their employment position had halted or been impacted by COVID-19. Furthermore, the survey's distribution timing may have also affected the sample size, with only an 8% response rate. This rate, though, is an acceptable rate for online surveys (Evans & Mathur, 2018). This low response rate could have resulted from students being disengaged during the pandemic. The survey was released during the summer months when enrollment numbers were reduced, and students may also have been experiencing virtual fatigue. This could have impacted their willingness to check email and participate in an online, voluntary study. Thus, COVID-19 was an unexpected limitation that may have significantly altered the results of this study. Replication of this study is recommended once institutions resume normal campus operations and in-person instruction. If normal operations do not resume, the demographic questionnaire should be further developed to include questions to better understand the employees' working conditions.

Lastly, the participant sample was from one institution. Other institutions' student employment programs may be formalized, with predefined learning outcomes and expectations for training and supervision. Different learning and training environments for student employees could influence the results. In addition, student demographics may also vary based on the institutional type, region, or campus curriculum. Consequently, caution should be taken when attempting to generalize the data to a population at an alternate institution. I recommend future research using multi-site data collection.

Future Research

While this study was conducted to fulfill educational requirements, I plan to continue to explore holistic learning and development, as it relates to student employment, to further

contribute to the field. COVID-19 created unexpected limitations, which potentially affected the results of the study. I will continue research once the pandemic ceases. If it is determined that virtual learning and remote student employment will continue for the near future, the study will be replicated with added questions to better understand students' working conditions during a pandemic. For example, I would add a question to determine if the student was working on-campus or remotely. I would also add a question to gauge the amount of supervision received while working remotely, if applicable.

The goal of this study was to extend the research presented in the RSLQ and SEOS reports with the aim of hopefully identifying additional broad data relationships. Psychometric issues likely attenuated the effects, such as the SEOS' non-normality and heterogeneity of covariance matrices. A factor analysis of the SEOS may be beneficial for researchers interested in applying this material for future study. Athas et al. (2013) stated, "It is likely that there are important connections to be noted, and further analysis is necessary to delineate these associations" (p. 63). Therefore, one focus of the next project is to explore such potential connections both within and across the data sets. Additionally, the results of the present study will be shared with authors of the RSLQ and SEOS in order to improve the research instruments and share data.

Lastly, the research could benefit from a larger, more diverse sample. I plan to explore a larger participant sample by working with other institutions to generate a multi-institutional survey. I will identify institutions by comparing variables related to institutional characteristics through the use of the Integrated Postsecondary Education Data System (IPEDS), a large postsecondary database.

Conclusion and Recommendations for Practice

This study examined student employees' learning outcomes and leadership behaviors by employment type to contribute to the literature and support practitioners' understanding of the impact of student employment. While results of this study will not dramatically change the field, they do lend support to institutions aiming to develop comprehensive training models for student employment experiences. Holistic learning is reliant on a collaborative, campus-wide approach to development (NASPA & ACPA, 2004). This study's findings provided support for a campus-wide, collaborative approach to employment training, as learning and leadership are not significant by type. Additionally, the results of this study added to the existing literature by providing insight on learning and leadership of employees outside of student affairs.

As institutions continue to hire students to carry out university functions and supplement professional staff, they should question how the on-campus employment experience is adding value to students' holistic development and education (Peck et al., 2015). Adding value requires recognition of the experience as an opportunity for learning. One way to add value is to purposely design the employment experience to focus on learning through the designation of learning outcomes. Institutions should develop campus-wide employment outcomes and not narrow student outcome development to one unit, department, or division. Learning outcomes should not only be developed for student employment, but also shared with the employee units in order to facilitate transformative, holistic learning. Institutions should consider implementing a campus-wide approach to training by creating an orientation or on-boarding experience for employees. An orientation or on-boarding experience may create an outlet to share proposed outcomes, methods for development, and the role the student must play in their own learning.

This training experience would initiate learning from the start of the employment experience, and further develop skills and learning.

Another way to add value to the student employment experience would be through recognition of employment as a co-curricular experience and component of students' academic journey. Institutions could acknowledge campus employment experiences as internships, guided by intentional learning outcomes, that would then lend way to academic credit and a more robust, meaningful experience. Departments hosting employees as credit-earning interns would then also need heightened training to support the students serving in that role. This training is needed to ensure the experience is reflective of other professional practices.

By providing training and additional support for supervisors, supervisors would more likely guide students with intentionality. The training would assist supervisors to intentionally provide constructive feedback, help students reflect on their experience, and understand its application to future careers. Institutions should consider implementing an annual learning-centered cycle, similar to a performance management cycle, for supervisors to prompt reflection and share feedback. Performance management is a common component of most professional experiences. Thus, introduction to a similar experience that focuses on learning (and performance as it relates to learning and application of acquired competencies) could advance the students' development. As a result, students' future employability could be heightened due to the self-awareness and learning acquired through the employment position.

Lastly, students should also be made aware of the potential for development as a stakeholder in their own education. By ensuring that each student employee is aware of the learning that should result from their experience, institutions are creating a structure which supports development while also holding hiring departments, divisions, and units accountable.

These measures may enhance student employees' holistic experience by providing for intentional learning and development within an on-campus employment experience.

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Appendix 1

IRB Exempt Form

Auburn University Human Research Protection Program

EXEMPTION REVIEW APPLICATION

For information or help completing this form, contact: THE OFFICE OF RESEARCH COMPLIANCE,
Location: 115 Ramsay Hall Phone: 334-844-5966 Email: IRBAdmin@auburn.edu

Submit completed application and supporting material as one attachment to IRBsubmit@auburn.edu.

1. PROJECT IDENTIFICATION

Today's Date March 23, 2020

a. Project Title An Examination of Undergraduate Student Employees' Learning and Holistic Development

b. Principal Investigator Lauren Hobbs Degree(s) M.S. Adult Education

Rank/Title Student Department/School EFLT

Phone Number 205-617-2697 AU Email ldh0016@auburn.edu

Faculty Principal Investigator (required if PI is a student) Dr. Leslie Cordie

Title Assistant Professor Department/School EFLT

Phone Number 334-844-3089 AU Email leslicordie@auburn.edu

Dept Head Dr. James Witte Department/School EFLT

Phone Number 334-844-3060 AU Email witteje@auburn.edu

c. Project Personnel (other PI) - Identify all individuals who will be involved with the conduct of the research and include their role on the project. Role may include design, recruitment, consent process, data collection, data analysis, and reporting. Attach a table if needed for additional personnel.

Personnel Name Dr. Kamden Strunk Degree (s) Ph.D.

Rank/Title Associate Professor Department/School EFLT

Role Committee member

AU affiliated? [checked] YES [] NO If no, name of home institution

Plan for IRB approval for non-AU affiliated personnel?

Personnel Name Degree (s)

Rank/Title Department/School

Role

AU affiliated? [] YES [] NO If no, name of home institution

Plan for IRB approval for non-AU affiliated personnel?

d. Training - Have all Key Personnel completed CITI human subjects training (including elective modules related to this research) within the last 3 years? YES [checked] NO []

The Auburn University Institutional Review Board has approved this Document for use from 04/14/2020 to Protocol # 20-190 EX 2004

Funding source – Is this project funded by the investigator(s)? YES NO
 Is this project funded by AU? YES NO If YES, identify source _____
 Is this project funded by an external sponsor? YES No If YES, provide the name of the sponsor, type of sponsor (governmental, non-profit, corporate, other), and an identification number for the award.
 Name _____ Type _____ Grant # _____

e. List other IRBs associated with this research and submit a copy of their approval and/or protocol.

2. Mark the category or categories below that describe the proposed research:

- 1. Research conducted in established or commonly accepted educational settings, involving normal educational practices. The research is not likely to adversely impact students' opportunity to learn or assessment of educators providing instruction. 104(d)(1)
- 2. Research only includes interactions involving educational tests, surveys, interviews, public observation if at least ONE of the following criteria. (The research includes data collection only; may include visual or auditory recording; may NOT include intervention and only includes interactions). **Mark the applicable sub-category below (i, ii, or iii).** 104(d)(2)
 - (i) Recorded information cannot readily identify the participant (directly or indirectly/linked); **OR**
 - surveys and interviews: no children;
 - educational tests or observation of public behavior: can only include children when investigators do not participate in activities being observed.
 - (ii) Any disclosures of responses outside would not reasonably place participant at risk; **OR**
 - (iii) Information is recorded with identifiers or code linked to identifiers and IRB conducts limited review; no children. **Requires limited review by the IRB.***
- 3. Research involving Benign Behavioral Interventions (BBI)** through verbal, written responses (including data entry or audiovisual recording) from adult subjects who prospectively agree and ONE of the following criteria is met. (This research does not include children and does not include medical interventions. Research cannot have deception unless the participant prospectively agrees that they will be unaware of or misled regarding the nature and purpose of the research) **Mark the applicable sub-category below (A, B, or C).** 104(d)(3)(i)
 - (A) Recorded information cannot readily identify the subject (directly or indirectly/linked); **OR**
 - (B) Any disclosure of responses outside of the research would not reasonably place subject at risk; **OR**
 - (C) Information is recorded with identifiers and cannot have deception unless participant prospectively agrees. **Requires limited review by the IRB.***
- 4. Secondary research for which consent is not required: use of identifiable information or identifiable bio-specimen that have been or will be collected for some other 'primary' or 'initial' activity, if one of the following criteria is met. Allows retrospective and prospective secondary use. **Mark the applicable sub-category below (I, ii, iii, or iv).** 104(d)(4)
 - (i) Biospecimens or information are publically available;
 - (ii) Information recorded so subject cannot readily be identified, directly or indirectly/linked; investigator does not contact subjects and will not re-identify the subjects; **OR**

- (iii) Collection and analysis involving investigators use of identifiable health information when use is regulated by HIPAA “health care operations” or “research or “public health activities and purposes” (does not include biospecimens (only PHI and requires federal guidance on how to apply); OR
- (iv) Research information collected by or on behalf of federal government using government generated or collected information obtained for non-research activities.
- 5. Research and demonstration projects which are supported by a federal agency/department AND designed to study and which are designed to study, evaluate, or otherwise examine: (i) public benefit or service programs; (ii) procedures for obtaining benefits or services under those programs; (iii) possible changes in or alternatives to those programs or procedures; or (iv) possible changes in methods or levels of payment for benefits or services under those programs. (must be posted on a federal web site). 104(d)(5) (must be posted on a federal web site)
- 6. Taste and food quality evaluation and consumer acceptance studies, (i) if wholesome foods without additives are consumed or (ii) if a food is consumed that contains a food ingredient at or below the level and for a use found to be safe, or agricultural chemical or environmental contaminant at or below the level found to be safe, by the Food and Drug Administration or approved by the Environmental Protection Agency or the Food Safety and Inspection Service of the U.S. Department of Agriculture. The research does not involve prisoners as participants. 104(d)(6)

New exemption categories 7 and 8: Both categories 7 and 8 require Broad Consent. (Broad consent is a new type of informed consent provided under the Revised Common Rule pertaining to storage, maintenance, and secondary research with identifiable private information or identifiable biospecimens. Secondary research refers to research use of materials that are collected for either research studies distinct from the current secondary research proposal, or for materials that are collected for non-research purposes, such as materials that are left over from routine clinical diagnosis or treatments. Broad consent does not apply to research that collects information or biospecimens from individuals through direct interaction or intervention specifically for the purpose of the research.) **The Auburn University IRB has determined that as currently interpreted, Broad Consent is not feasible at Auburn and these 2 categories WILL NOT BE IMPLEMENTED at this time.**

***Limited IRB review – the IRB Chairs or designated IRB reviewer reviews the protocol to ensure adequate provisions are in place to protect privacy and confidentiality.**

****Category 3 – Benign Behavioral Interventions (BBI) must be brief in duration, painless/harmless, not physically invasive, not likely to have a significant adverse lasting impact on participants, and it is unlikely participants will find the interventions offensive or embarrassing.**

3. PROJECT SUMMARY

a. Does the study target any special populations? (Mark applicable)

- | | |
|---|---|
| Minors (under 19) | <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO |
| Pregnant women, fetuses, or any products of conception | <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO |
| Prisoners or wards (unless incidental, not allowed for Exempt research) | <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO |
| Temporarily or permanently impaired | <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO |

b. Does the research pose more than minimal risk to participants? YES NO

Minimal risk means that the probability and magnitude of harm or discomfort anticipated in the research are not greater in and of themselves than those ordinarily encountered in daily life or during the performance of routine physical or psychological examinations or test. 42 CFR 46.102(i)

c. Does the study involve any of the following?

- Procedures subject to FDA regulations (drugs, devices, etc.) YES NO
- Use of school records of identifiable students or information from instructors about specific students. YES NO
- Protected health or medical information when there is a direct or Indirect link which could identify the participant. YES NO
- Collection of sensitive aspects of the participant's own behavior, such as illegal conduct, drug use, sexual behavior or alcohol use. YES NO
- Deception of participants YES NO

4. Briefly describe the proposed research, including purpose, participant population, recruitment process, consent process, research procedures and methodology.

McFadden and Wallace Carr (2015) point out three factors which are essential to creating purposeful experiences to grow students' leadership capacity within employment roles. These factors include an understanding of student learning styles, student development, as well as the types of work being conducted (McFadden & Wallace Carr, 2015). The purpose of this study is to identify student employees' learning and leadership developmental based upon the type of employment, as well as explore whether a relationship exists between learning and leadership among this population of university students. This research will enhance practitioners' understanding of on-campus employment by positional type with the potential to increase the development of student employees' transferable skills and experiences. There are 3 research questions: 1. Is employment type a predictor of learning and development?; 2. Are there significant differences in the leadership behaviors of student employees based upon their type of employment?; 3. What is the relationship between student employees' learning and leadership behaviors?

This project seeks undergraduate student employees as the targeted population for study. An electronic Information Letter will be attached to the recruitment email which will be distributed by Auburn's Office of Institutional Research. A sequence of four communications, modeling the Tailored Design Method to enhance completion rates, will be used to introduce the survey and encourage completion (Dillman, Smyth, & Melani, 2014). Employees will be emailed at the conclusion of the first, second, and third week following initial distribution. This study will use a demographic questionnaire and two instruments for data collection. The Student Employee Outcomes Survey (SEOS) determines participants' co-curricular learning and development resulting from their employment role, while the Revised Self-Leadership Questionnaire (RLSQ) determines leadership behaviors (Athas, Oaks, & Kennedy-Phillips, 2013; Houghton & Neck, 2002). A Qualtrics survey was created combining 7 descriptive questions, 53 SEOS questions, and 34 RLSQ questions. This totals 94 questions. Participants are projected to spend *twelve* minutes completing the survey, based on the predicted duration provided by the Qualtrics platform. There are no additional requests of participants. Participants will be allowed to take the survey on their own time through an electronic link. The survey will be scored by the researcher using the instruments' scoring guides, and SPSS will support the statistical analysis of the data. Through SPSS, statistical tests including the multivariate analysis of variance (MANOVA) and canonical correlation analysis (CCA) will be performed. Measures of central tendency will also be recorded to report on participant demographics.

5. Waivers

Check any waivers that apply and describe how the project meets the criteria for the waiver. Provide the rationale for the waiver request.

- Waiver of Consent (Including existing de-identified data)**
- Waiver of Documentation of Consent (Use of Information Letter)**
- Waiver of Parental Permission (for college students)**

All retrospective information will be de-identified.

This study poses no more than minimal risk; the primary risk is the loss of confidentiality. The only record linking participant identities with the study would be the signed consent form. Therefore, a waiver of documentation protects against the study's primary risk.

8. Describe why none of the research procedures would cause a participant either physical or psychological discomfort or be perceived as discomfort above and beyond what the person would experience in daily life.

Participants will complete an online survey through the Qualtrics platform taking approximately 12 minutes of their time. Participation is completely voluntary. Participants will not be required to disclose any identifiable data. While they will be asked to report on their employment type, they will not be asked to identify associated campus departments. There will be no use of deception.

9. Describe the provisions to maintain confidentiality of data, including collection, transmission, and storage.

All data collected from this project will be securely stored through Qualtrics and Box. Each platform requires two-factor authentication through the University's authentication software. These files will only be accessible to the project researchers. The principle investigator and the faculty advisors will have access to data through Box.

10. Describe the provisions included in the research to protect the privacy interests of participants (e.g., others will not overhear conversations with potential participants, individuals will not be publicly identified or embarrassed).

Participants will be invited to participate by the Auburn University Office of Institutional Research; the researcher will not have access to the participant's email addresses or any other identifiable data. Using Auburn University's Qualtrics platform, this project's survey will be administered electronically. Aggregate data will be used to share all results associated to this study. IP address tracking will be disabled in Qualtrics.

11. Will the research involve interacting (communication or direct involvement) with participants?

YES **NO** If **YES**, describe the consent process and information to be presented to subjects. This includes identifying that the activities involve research; that participation is voluntary; describing the procedures to be performed; and the PI name and contact information.

The Office of Institutional Research will distribute the invitation to participants on behalf of the researcher using the Information Letter and email link to the survey provided by the researcher and approved by the Institutional Review Board. A sequence of four communications will be used to introduce the survey and encourage completion, following the Tailored Design Method (Dillman, Smyth, & Melani, 2014). This method is an extension of the social exchange theory and supports researchers' development of survey implementation processes (Dillman, Smyth, & Melani, 2014). For this study, the student employees will first receive an Electronic Information Letter seeking voluntary participation. The student employees will then be emailed at the conclusion of the first, second, and third week following initial distribution, as means to increase survey response.

12. Additional Information and/or attachments.

In the space below, provide any additional information you believe may help the IRB review of the proposed research. If attachments are included, list the attachments below. Attachments may include recruitment materials, consent documents, site permissions, IRB approvals from other institutions, etc.

In an effort to increase the response rate, the participant will have the optional opportunity, once completed with the survey, to electronically reroute to an online form, not associated to the primary survey, to submit their name and email for entry to win a one of four \$25.00 Amazon gift cards. This is optional and not required. The participant must click on the link to reroute and submit for the drawing.

Appendices:

- References
- Survey Email
- Information Letter to Participants (will be attached to Email)
- Office of Institutional Research Consent to Assist - Email --
- Permission of Use, Revised Self-Leadership Questionnaire
- Qualtrics survey (Combined instruments) - Link and Hard Copy of online survey

Principal Investigator's Signature Lauren Hobbs Date 3/23/2020

If PI is a student,
Faculty Principal Investigator's Signature Leslie Cordis Date 3/26/2020

Department Head's Signature James E. Witte Date 4/13/2020

Appendix 2

Email Invitation for Online Survey

E-MAIL INVITATION FOR ON-LINE SURVEY

SUBJECT: Auburn Student Employee Survey: Share Your Experience

Dear _____,

I am a graduate student in the Department of Educational Foundations, Leadership and Technology at Auburn University. I would like to invite you to participate in my research study to examine undergraduate student employees' holistic learning and leadership development based upon your type of employment. You may participate (*or may not participate*) if you are an undergraduate, student employee paid by Auburn University.

Participants will be asked to complete an online survey. Your total time commitment will be approximately 20 minutes.

Your participation is completely voluntary. You will not be asked to disclose any identifiable information or identify your hiring department. **If you participate in this study, you can enter to win a \$25 Amazon gift card.** At the conclusion of the survey, if interested, you will reroute to a separate form to submit your name and email for consideration. This is optional and not required. You may only participate once in the survey and drawing.

If you would like to know more information about this study, an information letter has been attached to this email. If you decide to participate after reading the letter, **you can access the survey by [clicking here](#) or from the link in the attachment.**

If you have any questions, please contact me at ldh0016@auburn.edu or 205-617-2697 or my advisor, Dr. Leslie Cordie, at lesliecordie@auburn.edu.

Thank you for your consideration,

Lauren Hobbs, M.S.
Candidate, Ph.D. in Adult Education
Department of Educational Foundations, Leadership & Technology
205-617-2697

The Auburn University Institutional Review Board has approved this document for use from April 14, 2020 to ----- Protocol #20-190 EX 2004, Hobbs

The Auburn University Institutional
Review Board has approved this
Document for use from
04/14/2020 to -----
Protocol # 20-190 EX 2004

Appendix 3

Information Letter



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

**INFORMATION LETTER
for a Research Study entitled**

*“An Examination of Undergraduate Student Employees’
Learning and Holistic Development”*

You are invited to participate in a research study to examine undergraduate student employees’ preferred learning styles and leadership behaviors based upon their employment type. The study is being conducted by Lauren Hobbs, Ph.D. candidate, under the direction of Dr. Leslie Cordie, Assistant Professor in the Auburn University Department of Educational Foundations, Leadership and Technology. You are invited to participate because you are currently employed by Auburn University as a paid, undergraduate student employee.

What will be involved if you participate? Your participation is completely voluntary. If you decide to participate in this research study, you will be asked to complete an anonymous, online survey. Your total time commitment will be approximately 12 minutes.

Are there any risks or discomforts? You will not be asked to disclose any identifiable information or identify your hiring department. There will be no use of deception.

Are there any benefits to yourself or others? If you participate in this study, you can enter to win a \$25 Amazon gift card. Four cards will be distributed. I cannot promise you that you will receive any or all of the benefits described. Entry for the Amazon gift card is optional. At the conclusion of the survey, you can reroute to a separate survey to submit your name and email for consideration. The additional survey is optional and not required. You may only participate once in the survey and drawing.

Will you receive compensation for participating? You will not receive compensation, but you can enter to win a \$25 Amazon gift card.

Are there any costs? There are no costs for participation

The Auburn University Institutional
Review Board has approved this
Document for use from
04/14/2020 to -----
Protocol # 20-190 EX 2004

If you change your mind about participating, you can withdraw at any time by closing your internet browser. If you choose to withdraw, your data can be withdrawn as long as it is identifiable. Once you've submitted anonymous data, it cannot be withdrawn since it will be unidentifiable. Your decision about whether or not to participate or to stop participating will not jeopardize your future relations with Auburn University.

Any data obtained in connection with this study will remain anonymous. Information collected through your participation may be used to fulfill an educational requirement. Aggregate data may be published in a professional journal and/or presented at a professional meeting.

If you have questions about this study, please contact Lauren Hobbs at ldh0016@uab.edu or 205-617-2697.

If you have questions about your rights as a research participant, you may contact the Auburn University Office of Research Compliance or the Institutional Review Board by phone (334) 844-5966 or e-mail at IRBadmin@auburn.edu or IRBChair@auburn.edu.

HAVING READ THE INFORMATION ABOVE, YOU MUST DECIDE IF YOU WANT TO PARTICIPATE IN THIS RESEARCH PROJECT. IF YOU DECIDE TO PARTICIPATE, PLEASE CLICK ON THE LINK BELOW. YOU MAY PRINT A COPY OF THIS LETTER TO KEEP.

Participant's signature: _____ Date: _____
Printed Name: _____

Investigator obtaining consent:  _____ Date: 3/20/2020
Printed Name: Lauren Hobbs

The Auburn University Institutional Review Board has approved this document for use from April 14, 2020 to ----- Protocol #20-190 EX 2004, Hobbs

[LINK TO SURVEY](#)

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Review Board has approved this
Document for use from
04/14/2020 to -----
Protocol # 20-190 EX 2004

Appendix 4

Survey

An Examination of Undergraduate Student Employees' Learning and Holistic Development

Start of Block: Demographic Questions

Thank you for your interest in participating in this research study. Your participation is completely voluntary. If you change your mind about participating, you can withdraw at any time by closing your internet browser. Your total time commitment will be approximately 12 minutes.



Do you work on-campus as a student employee?

- Yes
- No

Please select your academic classification:

Graduate/Professional students should not complete survey.

- Freshman
- Sophomore
- Junior
- Senior

The Auburn University Institutional
Review Board has approved this
Document for use from
04/14/2020 to -----
Protocol # 20-190 EX 2004

Please select the employment type which most closely aligns to your current employment position.

If you work more than one job, please respond based on the job that requires the most hours.

- Campus Recreation
 - Mentorship/Tutoring
 - Clerical/Administrative
 - Facilities/Maintenance
 - Dining/Food Services
 - Technology
 - Research
-

Please select your age:

- 18 years old or younger
 - 19 - 20 years old
 - 21 - 22 years old
 - 23 - 24 years old
 - 24 years old or older
-

Please select your gender identity:

- Agender
- Man
- Woman
- Nonbinary/Genderqueer/Genderfluid
- Two spirit
- Another identity not listed here

End of Block: Demographic Questions

Start of Block: Revise Self-Leadership Questionnaire

I use my imagination to picture myself performing well on important tasks.

	1 - Not at all accurate	2 - Somewhat accurate	3 - A little accurate	4 - Mostly accurate	5 - Completely accurate
How true is this statement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I establish specific goals for my own performance.

	1 - Not at all accurate	2 - Somewhat accurate	3 - A little accurate	4 - Mostly accurate	5 - Completely accurate
How true is this statement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Sometimes I find I'm talking to myself (out loud or in my head) to help me deal with difficult problems I face.

	1 - Not at all accurate	2 - Somewhat accurate	3 - A little accurate	4 - Mostly accurate	5 - Completely accurate
How true is this statement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

When I do an assignment especially well, I like to treat myself to some thing or activity I especially enjoy.

	1 - Not at all accurate	2 - Somewhat accurate	3 - A little accurate	4 - Mostly accurate	5 - Completely accurate
How true is this statement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I think about my own beliefs and assumptions whenever I encounter a difficult situation.

	1 - Not at all accurate	2 - Somewhat accurate	3 - A little accurate	4 - Mostly accurate	5 - Completely accurate
How true is this statement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

When I do something well, I reward myself with a special event such as a good dinner, movie, shopping trip, etc.

	1 - Not at all accurate	2 - Somewhat accurate	3 - A little accurate	4 - Mostly accurate	5 - Completely accurate
How true is this statement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I tend to get down on myself in my mind when I have performed poorly.

	1 - Not at all accurate	2 - Somewhat accurate	3 - A little accurate	4 - Mostly accurate	5 - Completely accurate
How true is this statement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I make a point to keep track of how well I'm doing at work (school).

	1 - Not at all accurate	2 - Somewhat accurate	3 - A little accurate	4 - Mostly accurate	5 - Completely accurate
How true is this statement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I focus my thinking on the pleasant rather than the unpleasant aspects of my job (school) activities.

	1 - Not at all accurate	2 - Somewhat accurate	3 - A little accurate	4 - Mostly accurate	5 - Completely accurate
How true is this statement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I use written notes to remind myself of what I need to accomplish.

	1 - Not at all accurate	2 - Somewhat accurate	3 - A little accurate	4 - Mostly accurate	5 - Completely accurate
How true is this statement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I visualize myself successfully performing a task before I do it.

	1 - Not at all accurate	2 - Somewhat accurate	3 - A little accurate	4 - Mostly accurate	5 - Completely accurate
How true is this statement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I consciously have goals in mind for my work efforts.

	1 - Not at all accurate	2 - Somewhat accurate	3 - A little accurate	4 - Mostly accurate	5 - Completely accurate
How true is this statement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Sometimes I talk to myself (out loud or in my head) to work through difficult situations.

	1 - Not at all accurate	2 - Somewhat accurate	3 - A little accurate	4 - Mostly accurate	5 - Completely accurate
How true is this statement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I try to mentally evaluate the accuracy of my own beliefs about situations I am having problems with.

	1 - Not at all accurate	2 - Somewhat accurate	3 - A little accurate	4 - Mostly accurate	5 - Completely accurate
How true is this statement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I tend to be tough on myself in my thinking when I have not done well on a task.

	1 - Not at all accurate	2 - Somewhat accurate	3 - A little accurate	4 - Mostly accurate	5 - Completely accurate
How true is this statement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I usually am aware of how well I'm doing as I perform an activity.

	1 - Not at all accurate	2 - Somewhat accurate	3 - A little accurate	4 - Mostly accurate	5 - Completely accurate
How true is this statement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I try to surround myself with objects and people that bring out my desirable behaviors.

	1 - Not at all accurate	2 - Somewhat accurate	3 - A little accurate	4 - Mostly accurate	5 - Completely accurate
How true is this statement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I use concrete reminders (e.g., notes and lists) to help me focus on things I need to accomplish.

	1 - Not at all accurate	2 - Somewhat accurate	3 - A little accurate	4 - Mostly accurate	5 - Completely accurate
How true is this statement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Sometimes I picture in my mind a successful performance before I actually do a task.

	1 - Not at all accurate	2 - Somewhat accurate	3 - A little accurate	4 - Mostly accurate	5 - Completely accurate
How true is this statement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I work toward specific goals I have set for myself.

	1 - Not at all accurate	2 - Somewhat accurate	3 - A little accurate	4 - Mostly accurate	5 - Completely accurate
How true is this statement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

When I'm in difficult situations I will sometimes talk to myself (out loud or in my head) to help me get through it.

	1 - Not at all accurate	2 - Somewhat accurate	3 - A little accurate	4 - Mostly accurate	5 - Completely accurate
How true is this statement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

When I have successfully completed a task, I often reward myself with something I like.

	1 - Not at all accurate	2 - Somewhat accurate	3 - A little accurate	4 - Mostly accurate	5 - Completely accurate
How true is this statement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I openly articulate and evaluate my own assumptions when I have a disagreement with someone else.

	1 - Not at all accurate	2 - Somewhat accurate	3 - A little accurate	4 - Mostly accurate	5 - Completely accurate
How true is this statement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I feel guilt when I perform a task poorly.

	1 - Not at all accurate	2 - Somewhat accurate	3 - A little accurate	4 - Mostly accurate	5 - Completely accurate
How true is this statement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I pay attention to how well I'm doing in my work.

	1 - Not at all accurate	2 - Somewhat accurate	3 - A little accurate	4 - Mostly accurate	5 - Completely accurate
How true is this statement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

When I have a choice, I try to do my work in ways that I enjoy rather than just trying to get it over with.

	1 - Not at all accurate	2 - Somewhat accurate	3 - A little accurate	4 - Mostly accurate	5 - Completely accurate
How true is this statement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I purposefully visualize myself overcoming the challenges I face.

	1 - Not at all accurate	2 - Somewhat accurate	3 - A little accurate	4 - Mostly accurate	5 - Completely accurate
How true is this statement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I think about the goals I that intend to achieve in the future.

	1 - Not at all accurate	2 - Somewhat accurate	3 - A little accurate	4 - Mostly accurate	5 - Completely accurate
How true is this statement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I think about and evaluate the beliefs and assumptions I hold.

	1 - Not at all accurate	2 - Somewhat accurate	3 - A little accurate	4 - Mostly accurate	5 - Completely accurate
How true is this statement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I sometimes openly express displeasure with myself when I have not done well.

	1 - Not at all accurate	2 - Somewhat accurate	3 - A little accurate	4 - Mostly accurate	5 - Completely accurate
How true is this statement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I keep track of my progress on projects I'm working on.

	1 - Not at all accurate	2 - Somewhat accurate	3 - A little accurate	4 - Mostly accurate	5 - Completely accurate
How true is this statement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I seek out activities in my work that I enjoy doing.

	1 - Not at all accurate	2 - Somewhat accurate	3 - A little accurate	4 - Mostly accurate	5 - Completely accurate
How true is this statement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I often mentally rehearse the way I plan to deal with a challenge before I actually face the challenge.

	1 - Not at all accurate	2 - Somewhat accurate	3 - A little accurate	4 - Mostly accurate	5 - Completely accurate
How true is this statement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I write specific goals for my own performance.

	1 - Not at all accurate	2 - Somewhat accurate	3 - A little accurate	4 - Mostly accurate	5 - Completely accurate
How true is this statement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I find my own favorite ways to get things done.

	1 - Not at all accurate	2 - Somewhat accurate	3 - A little accurate	4 - Mostly accurate	5 - Completely accurate
How true is this statement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: Revise Self-Leadership Questionnaire

Start of Block: Student Employee Outcomes Survey

My experience as a student employee has:

	1 (Greatly)	2	3	4	5	6 (Not at all)
Allowed me to acquire new skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Allowed me to form new meaningful friendship	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Allowed me to realize a greater potential in myself	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Expanded my interactions with people of diverse backgrounds	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fostered a sense of belonging	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fostered my ability to take the initiative in situations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Given me a greater sense of purpose	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Given me a sense of pride in the work that I do	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Helped add value to my life	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Helped me better manage my money	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Helped me to achieve a better balance between work and life

Helped me to clarify my academic goals

Helped me to develop a better understanding of myself

Helped me to learn patience

Helped me to solidify my career goals

Helped me to solidify my values

Improved my ability to admit my mistakes

Improved my ability to comfortably interact with others

Improved my ability to communicate effectively with others

Improved my ability to express my thoughts and opinions clearly

Improved my ability to make timely decisions

Improved my ability to provide constructive criticism

Improved my ability to remain focused on individual tasks

Improved my ability to resolve conflict respectfully

Improved my ability to take direction/follow instructions

Improved my ability to think before I act

Improved my ability to weigh different perspectives in my everyday decisions and considerations

Improved my ability to work as a part of team

Improved my critical thinking skills

Improved my organizational skills

Improved my speaking skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Improved my technological skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Improved my time management skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Improved my writing skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increased my attention to detail	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increased my awareness of other cultures	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increased my motivation to work on my academics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Introduced me to career opportunities that I was unaware of	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Introduced me to skills I did not know I had	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Made me a more dependable person	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Made me a more responsible person in my everyday actions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Made me a more tolerant person	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Made me consider the repercussions of my actions

Made me more approachable

Made me more self-sufficient

Motivated me to become more involved within my community

Motivated me to become pursue a higher level of education

Opened my eyes to global issues

Opened my eyes to national issues

Provided me with skills that will be useful in a future career

Pushed me beyond what I thought I was capable of

Transitioned me into a more productive life style

Appendix 5

CITI Certification



Completion Date 14-Oct-2019

Expiration Date 13-Oct-2022

Record ID 31369008

This is to certify that:

Lauren Hobbs

Has completed the following CITI Program course:

IRB Additional Modules

(Curriculum Group)

Conflicts of Interest in Research Involving Human Subjects

(Course Learner Group)

1 - Basic Course

(Stage)

Under requirements set by:

Auburn University



Verify at www.citiprogram.org/verify/?wf20ab7b5-5a7c-436c-8cad-553c30233c0a-31369008



Completion Date 14-Oct-2019

Expiration Date 13-Oct-2022

Record ID 31369006

This is to certify that:

Lauren Hobbs

Has completed the following CITI Program course:

IRB Additional Modules

(Curriculum Group)

Defining Research with Human Subjects - SBE

(Course Learner Group)

1 - Basic Course

(Stage)

Under requirements set by:

Auburn University



Collaborative Institutional Training Initiative

Verify at www.citiprogram.org/verify/?w8cb2c0b8-4786-4a29-906b-bbe3dd3a7ab8-31369006



Completion Date 14-Oct-2019
Expiration Date 13-Oct-2022
Record ID 31369007

This is to certify that:

Lauren Hobbs

Has completed the following Citi Program course:

IRB Additional Modules (Curriculum Group)
Internet Research - SBE (Course Learner Group)
1 - Basic Course (Stage)

Under requirements set by:

Auburn University



Verify at www.citiprogram.org/verify/?w74bacba4-18d5-4957-920a-f59a99c146c2-31369007



Completion Date 10-Dec-2019

Expiration Date 09-Dec-2022

Record ID 31352897

This is to certify that:

Lauren Hobbs

Has completed the following CITI Program course:

IRB # 2 Social and Behavioral Emphasis - AU Personnel - Basic/Refresher (Curriculum Group)

IRB # 2 Social and Behavioral Emphasis - AU Personnel (Course Learner Group)

1 - Basic Course (Stage)

Under requirements set by:

Auburn University



Verify at www.citiprogram.org/verify/?w55826b49-27df-465c-8c72-439c071c5213-31352897



Completion Date 20-Jul-2016

Expiration Date 19-Jul-2021

Record ID 20279808

This is to certify that:

Lauren Hobbs

Has completed the following CITI Program course:

Responsible Conduct of Research for Social and Behavioral (Curriculum Group)

Social, Behavioral and Education Sciences RCR (Course Learner Group)

1 - RCR (Stage)

Under requirements set by:

Auburn University



Verify at www.citiprogram.org/verify/?w4ed61013-9664-46a4-a9fc-4c44a0121320-20279808



Kamden Strunk
ID 1880376

Records

Auburn University (ID 964)

Show Records for:

Auburn University

Show All

Auburn University Records (ID 964)

IRB Additional Modules - Avoiding Group Harms - International Research Perspectives (ID 110750)

Stage	Record ID	Passing Score	Your Score	Start Date	Completion Date	Expiration Date	Gradebook	Completion Record
Basic Course	16810311	80%	100%	01-Aug-2015	01-Aug-2015	01-Aug-2018	View	View-Print-Share
Basic Course	26979453	80%	100%	30-Jun-2018	30-Jun-2018	29-Jun-2021	View	View-Print-Share

IRB Additional Modules - Avoiding Group Harms - U.S. Research Perspectives (ID 110749)

Stage	Record ID	Passing Score	Your Score	Start Date	Completion Date	Expiration Date	Gradebook	Completion Record
Basic Course	16810310	80%	100%	01-Aug-2015	01-Aug-2015	01-Aug-2018	View	View-Print-Share
Basic Course	26979452	80%	100%	30-Jun-2018	30-Jun-2018	29-Jun-2021	View	View-Print-Share

IRB Additional Modules - Conflicts of Interest in Research Involving Human Subjects (ID 110748)

Stage	Record ID	Passing Score	Your Score	Start Date	Completion Date	Expiration Date	Gradebook	Completion Record
Basic Course	16810309	80%	80%	01-Aug-2015	01-Aug-2015	01-Aug-2018	View	View-Print-Share
Basic Course	26979451	80%	80%	30-Jun-2018	30-Jun-2018	29-Jun-2021	View	View-Print-Share

IRB Additional Modules - Cultural Competence in Research (ID 110758)

Stage	Record ID	Passing Score	Your Score	Start Date	Completion Date	Expiration Date	Gradebook	Completion Record
Basic Course	16810313	80%	100%	01-Aug-2015	01-Aug-2015	01-Aug-2018	View	View-Print-Share
Basic Course	26979454	80%	100%	30-Jun-2018	30-Jun-2018	29-Jun-2021	View	View-Print-Share

IRB Additional Modules - Defining Research with Human Subjects - SBE (ID 110761)

Stage	Record ID	Passing Score	Your Score	Start Date	Completion Date	Expiration Date	Gradebook	Completion Record
Basic Course	16810315	80%	100%	01-Aug-2015	01-Aug-2015	01-Aug-2018	View	View-Print-Share
Basic Course	26979456	80%	100%	30-Jun-2018	30-Jun-2018	29-Jun-2021	View	View-Print-Share

IRB Additional Modules - History and Ethical Principles - SBE (ID 110759)

Stage	Record ID	Passing Score	Your Score	Start Date	Completion Date	Expiration Date	Gradebook	Completion Record
Basic Course	16810314	80%	100%	01-Aug-2015	01-Aug-2015	01-Aug-2018	View	View-Print-Share
Basic Course	26979455	80%	100%	30-Jun-2018	30-Jun-2018	29-Jun-2021	View	View-Print-Share

IRB Additional Modules - International Research - SBE (ID 32240)

Stage	Record ID	Passing Score	Your Score	Start Date	Completion Date	Expiration Date	Gradebook	Completion Record
Basic Course	16810300	80%	80%	01-Aug-2015	01-Aug-2015	01-Aug-2018	View	View-Print-Share
Basic Course	26979444	80%	80%	30-Jun-2018	30-Jun-2018	29-Jun-2021	View	View-Print-Share

IRB Additional Modules - Internet Research - SBE (ID 32248)

Stage	Record ID	Passing Score	Your Score	Start Date	Completion Date	Expiration Date	Gradebook	Completion Record
Basic Course	16810304	80%	100%	01-Aug-2015	01-Aug-2015	01-Aug-2018	View	View-Print-Share
Basic Course	26979448	80%	80%	30-Jun-2018	30-Jun-2018	29-Jun-2021	View	View-Print-Share

IRB Additional Modules - Records-Based Research (ID 32236)

Stage	Record ID	Passing Score	Your Score	Start Date	Completion Date	Expiration Date	Gradebook	Completion Record
Basic Course	16810299	80%	100%	01-Aug-2015	01-Aug-2015	01-Aug-2018	View	View-Print-Share
Basic Course	26979443	80%	100%	30-Jun-2018	30-Jun-2018	29-Jun-2021	View	View-Print-Share

IRB Additional Modules - Research in Public Elementary and Secondary Schools - SBE (ID 32241)

Stage	Record ID	Passing Score	Your Score	Start Date	Completion Date	Expiration Date	Gradebook	Completion Record
Basic Course	16810301	80%	100%	01-Aug-2015	01-Aug-2015	01-Aug-2018	View	View-Print-Share
Basic Course	26979445	80%	80%	30-Jun-2018	30-Jun-2018	29-Jun-2021	View	View-Print-Share

IRB Additional Modules - Research with Children - SBE (ID 32243)

Stage	Record ID	Passing Score	Your Score	Start Date	Completion Date	Expiration Date	Gradebook	Completion Record
Basic Course	16810303	80%	100%	01-Aug-2015	01-Aug-2015	01-Aug-2018	View	View-Print-Share
Basic Course	26979447	80%	80%	30-Jun-2018	30-Jun-2018	29-Jun-2021	View	View-Print-Share

IRB Additional Modules - Research with Prisoners - SBE (ID 32242)

Stage	Record ID	Passing Score	Your Score	Start Date	Completion Date	Expiration Date	Gradebook	Completion Record
Basic Course	16810302	80%	100%	01-Aug-2015	01-Aug-2015	01-Aug-2018	View	View-Print-Share
Basic Course	26979446	80%	100%	30-Jun-2018	30-Jun-2018	29-Jun-2021	View	View-Print-Share

IRB Additional Modules - Workers as Research Subjects - A Vulnerable Population (ID 32249)

Stage	Record ID	Passing Score	Your Score	Start Date	Completion Date	Expiration Date	Gradebook	Completion Record
Basic Course	16810305	80%	100%	01-Aug-2015	01-Aug-2015	01-Aug-2018	View	View-Print-Share
Basic Course	26979449	80%	100%	30-Jun-2018	30-Jun-2018	29-Jun-2021	View	View-Print-Share

Responsible Conduct of Research for Social and Behavioral - Social, Behavioral and Education Sciences RCR (ID 38149)

Stage	Record ID	Passing Score	Your Score	Start Date	Completion Date	Expiration Date	Gradebook	Completion Record
RCR	16810306	80%	91%	01-Aug-2015	01-Aug-2015	01-Aug-2020	View	View-Print-Share
RCR Refresher	27691991	80%	93%	01-Jul-2019	01-Jul-2019	29-Jun-2024	View	View-Print-Share

ID 62402)

Stage	Record ID	Passing Score	Your Score	Start Date	Completion Date	Expiration Date	Gradebook	Completion Record
Stage 1	16810307	80%	80%	01-Aug-2015	01-Aug-2015	01-Aug-2019	View	View-Print-Share
Refresher	31489783	80%	100%	01-Jul-2019	01-Jul-2019	30-Jun-2023	View	View-Print-Share

IRB # 2 Social and Behavioral Emphasis - AU Personnel - Basic/Refresher - IRB # 2 Social and Behavioral Emphasis - AU Personnel (ID 72746)

Stage	Record ID	Passing Score	Your Score	Start Date	Completion Date	Expiration Date	Gradebook	Completion Record
Basic Course	16810308	80%	87%	01-Aug-2015	01-Aug-2015	01-Aug-2018	View	View-Print-Share
Basic Course	26979450	80%	94%	01-Jul-2019	01-Jul-2019	30-Jun-2022	View	View-Print-Share

Essentials of Research Administration (ID 116818)

Stage	Record ID	Passing Score	Your Score	Start Date	Completion Date	Expiration Date	Gradebook	Completion Record
Basic Course	20243089	80%	88%	15-Jul-2016	15-Jul-2016	-	View	View-Print-Share

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Monday – Friday

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Completion Date 19-Dec-2017
Expiration Date 18-Dec-2020
Record ID 22147956

This is to certify that:

Leslie Cordie

Has completed the following CITI Program course:

IRB Additional Modules (Curriculum Group)
Internet Research - SBE (Course Learner Group)
1 - Basic Course (Stage)

Under requirements set by:

Auburn University



Verify at www.citiprogram.org/verify/?wad7b868b-1c02-4b19-b295-ffe68d1642bd-22147956