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Program Evaluation of Online and Face-to-Face College and Career Readiness and its Effect on Degree Utilization in Community College Graduates

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PROGRAM EVALUATION OF ONLINE AND FACE-TO-FACE COLLEGE AND CAREER READINESS AND ITS EFFECT ON DEGREE UTILIZATION IN COMMUNITY COLLEGE GRADUATES

by

Tyson M. Riskas

A dissertation submitted in partial fulfillment
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ABSTRACT

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by

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Utah State University, 2023

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Salt Lake Community College (SLCC) introduced the Pathway initiative to better develop essential college and career readiness (CCR) skills among college graduates. This program is being rolled out in phases and is about to implement changes to classroom pedagogy to increase graduates' levels of CCR. However, SLCC lacks information on the effectiveness of its current degree programs, making it difficult to measure the effectiveness of the Pathway initiative. SLCC has been offering students the option of the online or face-to-face delivery method since Fall 2017; therefore, SLCC needs to know how each of these delivery methods performs in the development of CCR.

This study is a program evaluation of the SLCC business programs guided by Kolb's experiential learning theory, where the research objectives were to (a) describe the academic and demographic characteristics of Gail Miller School of Business graduates by delivery method, (b) compare academic development and self-development between online and face-to-face graduates from the Gail Miller School of Business, (c) determine

what influence delivery method and academic and demographic characteristics had on CCR among Gail Miller School of Business graduates, (d) describe why graduates attended SLCC, how they are using their degree/certificate, and why some graduates did not use their degree/certificate, and (e) explain how delivery method, CCR, and degree type influence degree utilization among Gail Miller School of Business graduates.

This study followed a non-experimental program evaluation using descriptive statistics, Mann-Whitney *U* tests, two-way ANOVAs, multiple regressions, Kendall's Tau correlations, and linear regressions to address the research objectives of this study. A total of 95 graduates responded to the online survey administered through Qualtrics software, with 83 usable.

Results showed that online graduates in this study had lower scores in communication and listening, perseverance, help-seeking, and self-determination when compared to face-to-face graduates. Furthermore, academic and demographic factors were not influential in developing CCR skills. The results also found that experiential learning and self-determination predict whether a graduate will utilize their degree for its intended purpose.

(213 pages)

PUBLIC ABSTRACT

Program Evaluation of Online and Face-to-Face College and Career Readiness and its Effect on Degree Utilization in Community College Graduates

Tyson M. Riskas

Salt Lake Community College has adopted the Pathway initiative as a part of its long-term strategic plan. Pathway is a student-centered approach to redesigning the college experience by assessing student experience to reorganize and re-present degree programs. Currently, SLCC focuses on adjusting class pedagogy and curriculum to equip students with core college and career readiness (CCR) skills and determine if graduates are utilizing their degree. The Gail Miller School of Business offers students the option of completing their degree online or face-to-face and choosing between degrees aimed at transferring to other institutions or entering a career. However, they are currently missing data on their graduates' CCR and degree utilization for both delivery methods and degree types. This study examines self-assessed CCR among online and face-to-face business graduates to assess and benchmark the Gail Miller School of Business programs. This study also assesses what factors contribute to graduates utilizing their degree for its intended purpose or not. Frequencies, percentages, Mann-Whitney U, two-way ANOVA, multiple regression, Kendall's Tau correlations, and linear regression are statistics used to compare online to face-to-face graduates to determine what factors influence whether a business school graduate will utilize their degree. The results found differences in the

online and face-to-face respondents from this study in CCR skill development. The results also indicated that GPA was a factor that influenced CCR development, and that degree utilization was affected by experiential learning and self-determination.

DEDICATION

To my wife Natalie and my daughters Rosie and Hazel. Your support has allowed me to accomplish my dream. Don’t be afraid of hard things and remember, we only fail when we stop trying.

In loving memory of Kenneth H. Hoover, upon your shoulders I proudly stand.

ACKNOWLEDGMENTS

I have always valued and enjoyed education. At a young age, my parents pushed me to examine the world critically and not to be afraid to ask questions. I had no idea where my career and education trajectory would lead me, and when I decided to get my Ph.D., I had no idea where this journey was going to take me. This process at USU has been one of, if not the most, influential experiences in my life. The Ph.D. Program at USU has caused me to challenge myself, adjust my thinking, critically examine my thoughts and ideas, and force me to examine the world more analytically. This has not always been comfortable, but it has been invaluable.

I would like to thank Dr. Kelsey Hall for being such an amazing advisor. She went above and beyond in her mentoring, support, and feedback. Her patience and understanding made all the difference in figuring out my dissertation research and aiding in the development of my research skills. Dr. Hall's knowledge and expertise has enabled me to turn my rough thoughts and ideas into polished and practical research. I really appreciated Dr. Hall's willingness to challenge me. She has pushed me beyond what I felt I could accomplish through her high expectations, dedication to quality research, and seemingly endless patience. Her mentoring has instilled confidence in me to produce meaningful and impactful, quality research. I could not ask for a better advisor to help me through this arduous process. I am grateful to have been trained by and learn from Dr. Hall. She is a fantastic person.

Dr Kristy Bloxham, Dr. Julena Bonner, Dr. Rose Judd-Murray, and Dr. Tyson Sorensen have been extremely valuable committee members, and I am grateful for their

thoughtful and constructive critiques throughout my Ph.D. journey. Their guidance helped in the improvement of my research and academic writing. Their flexibility in meeting with me on various occasions to clarify my questions or further explain concepts I struggled to understand made all the difference in my academic development. I have felt them in my corner the entire time, and I could not have asked for better, more supportive committee members. Thank you.

My family and close friends were invaluable assets to me in completing this dissertation. Their support, words of encouragement, and council has helped me in more ways than I can express.

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CHAPTER I

INTRODUCTION

One of the main concerns regarding business education is the lack of college and career readiness (CCR) skills that graduates possess when moving into the workforce or furthering their education (Berr, 2016; Hart Research Associates, 2015; Kosnik et al., 2013; Robles, 2012). Studies indicate that many students are ill-prepared when transitioning into their next stage of life post-graduation, lacking essential skills needed for college and workforce success (Berr, 2016; Kosnik et al., 2013; New England Board of Higher Education, 2018; Robles, 2012).

Many universities have adopted CCR frameworks and adjusted their degree programs to develop CCR skills better (i.e., academic development and self-development; Black et al., 2021; Ritter et al., 2018). CCR is broken into various skills, all contributing to a graduate's ability to utilize their degree for their intended purposes (i.e., workforce, continuing education). Existing research suggests looking at CCR through multiple factors, including academic development (Conley, 2007 Jackson, 2018; Mohapatra, 2015; Rodge & Gupta, 2020; Strusowski, 2013) and personal development (Bennett et al., 2020; Deer et al., 2018; McElroy, 2019). Few, if any, studies have looked at all these factors holistically and assessed how they might explain graduate success (i.e., degree utilization; Durham, 2016; Harrell & Reglin, 2018; Harris, 2013). All these elements are essential to developing CCR; however, educators have difficulty

consistently integrating concepts and activities related to CCR while balancing the need to teach essential technical skills (Mitchell et al., 2010). Therefore, developing well-rounded CCR among students can be challenging.

Online Adoption

In recent years, most higher education institutions have begun to adopt online education as an educational delivery method because of its convenience, accessibility, and ability to meet the unique needs of its student population (Allen & Seaman, 2011, 2013; Palvia et al., 2018). The COVID-19 pandemic exacerbated the adoption of online learning (Ali, 2020; Dhawan, 2020).

Salt Lake Community College (SLCC) has made a concerted effort to adopt online education as a delivery method due to its non-traditional and part-time student population. SLCC has 53% first-generation students and 81% working while attending school. Furthermore, 70% of SLCC graduates utilize their degree by transferring to four-year colleges to complete bachelor's degrees, with the remaining 30% using their degree for career progression (SLCC, 2021c). These circumstances have resulted in the Gail Miller School of Business offering its degrees entirely online since 2017 (B. Willett, personal communication, January 7, 2019). The SLCC online education initiative focuses on offering online classes that are highly interactive and engaging to offer students experiences that can apply to the workforce (SLCC, 2021a).

Effects of Online Integration

Student enrollment in online classes has been steadily increasing across U.S. higher education institutions (Palvia et al., 2018); however, this shift does not come without its issues that can negatively impact CCR and prevent graduates from utilizing their degree (Al-Samarraie et al., 2018; Bambara et al., 2009; Britto & Rush, 2013; Jaggars, 2014; Jaggars & Bailey, 2010; Jaggars & Xu, 2016; Rust et al., 2015; Soffer & Nachmias, 2018). Many employers look at online degrees with some ambivalence, and current research is inconclusive on its effectiveness in developing the CCR skills needed for a successful workforce or continuing education transition (Bryson & Andres, 2020; Hara, 2000; Morgan & Adams, 2009; Raymundo, 2020).

Morgan and Adams (2009) and Raymundo (2020) found that online courses often lack activities that foster CCR, due to improper online course development, leading to a lack of skill development requisite for successful assimilation into the workforce or continuing education. Nevertheless, when proper care is taken to include these activities, performance in online classes increase (Raymundo, 2020). Therefore, assessing and comparing CCR between online and face-to-face delivery methods is essential to yielding information to optimize degree programs.

Problem Statement

In the fall of 2014, SLCC announced the Pathway initiative as a part of its long-term strategic plan. Pathway is a student-centered approach to redesigning the college experience by assessing student experience to reorganize and re-present degree programs

(SLCC, 2021d). Pathway focuses on creating a graduation path for students that eliminates unnecessary classes and time spent obtaining a degree while focusing on developing CCR to help students utilize their degree for the intended purpose. SLCC has planned a phased rollout of the Pathway initiative that began in the fall of 2016 and has continued implementing new phases at the beginning of every new school year. In the fall of 2019, SLCC initiated phase three, which focused on adjusting class pedagogy and curriculum to equip students with core CCR skills to increase success in degree utilization.

SLCC's Gail Miller School of Business offers students the option of completing their degree online or face-to-face and choosing between degrees aimed at transferring to other institutions or entering a career. However, they are currently missing data on their graduates' CCR skills and degree utilization for both delivery methods and degree types, leaving them with many questions on reorganizing and re-presenting their degree programs. Additionally, academic and demographic characteristics are a significant factor in CCR and degree utilization (Bailey et al., 2005; Clotfelter et al., 2013; Wang, 2012). Measuring the effect of academic and demographic factors would provide the Gail Miller School of Business with information on which factors explain college and career readiness. By understanding this, SLCC may better fulfill its mission of creating inclusive education that meets the needs of its student population and values various perspectives. Therefore, assessing CCR and degree utilization can verify what SLCC business programs are doing well so those practices can continue. Additionally, pinpointing areas for improvement and reform can strengthen the existing programs. Improvement in these

areas aligns with the Pathway initiative, which focuses on degree reform based on CCR skills and its impact on degree utilization.

Degree utilization fulfills student educational goals and objectives and is a key performance indicator for many higher education institutions (Bailey et al., 2005; National Association of Colleges and Employers [NACE], 2022). Assessing degree utilization allows colleges to determine if students use their degrees for their intended purpose. Degree utilization assessment is essential because degree utilization is connected to alumni satisfaction, alumni donations, college ranking, college reputation, and future enrollments (Arizzi et al., 2020; Skari, 2011). Existing research has found that CCR influences degree utilization and that academic and demographic factors such as age, gender, ethnicity, first-generation status, and enrollment status may also affect degree utilization (Bailey et al., 2005; Clotfelter et al., 2013; Wang, 2012). Existing literature also shows a positive correlation between institutional career services and degree utilization. Therefore, assessing CCR, delivery method, degree type, and institutional career services regarding degree utilization may provide valuable alumni and program data that SLCC can use to optimize their business degree programs among both delivery methods.

Purpose and Research Objectives

The purpose of this study was to evaluate CCR between online and face-to-face business school graduates and determine what factors explain CCR and degree utilization. Specific objectives of this study were the following:

1. Describe the academic and demographic characteristics of Gail Miller School of Business graduates.
2. Compare academic development and self-development between online and face-to-face graduates from the Gail Miller School of Business.

   H_0: Graduates who completed online degrees compare equally to face-to-face graduates in academic development and self-development.
3. Determine what influence delivery method and academic and demographic characteristics had on CCR among Gail Miller School of Business graduates.

   H_0: Academic and demographic factors do not influence CCR among Gail Miller School of Business graduates.
4. Describe why graduates attended SLCC, how they are using their degree/certificate, and why some graduates did not use their degree/certificate.
5. Explain how delivery method, CCR, and degree type influence degree utilization among Gail Miller School of Business graduates.

Significance of the Research

SLCC has offered online degree programs for five years but has yet to assess CCR skills and degree utilization. This study sought to compare CCR among online and face-to-face SLCC business school graduates and understand their degree utilization. CCR is an excellent aim for institutions but is most useful when it assists graduates in accomplishing their goals. Understanding the development of CCR along with the degree utilization process is important as it may provide insight into the specific needs of

students (Bailey et al., 2005; Monaghan & Attewell, 2015). Comparing online and face-to-face programs in their development of CCR and understanding how graduates use their degree was important as it is associated with high levels of student satisfaction, alumni donations, college reputation, and future enrollments (Arizzi et al., 2020; Skari, 2011). It also provided a clear path for SLCC in its education reform to best meet the needs of its student body. In other words, the perception of their educational experiences influences the future success of college graduates (Roby et al., 2013).

The results of this study helped establish benchmarks for assessment. They could inform the Gail Miller School of Business on possible classroom pedagogy adjustments and the development of student employability skills. Additionally, this study could help SLCC better understand what institutional career services affect degree utilization. The information gained by comparing CCR skills among online and face-to-face graduates could help the School of Business at SLCC remain competitive. There is a need to assess and understand CCR variations, especially for online degree programs, to remain viable as online education moves from growth to maturity in the product life cycle (Al-Hunaiyyan et al., 2021; Pentina & Neeley, 2007; Qiao et al., 2021). This study would benefit institutions looking to increase overall student CCR in online and face-to-face programs. Further, this study was significant and timely because it would provide valuable insights into how SLCC could improve degree program equity and enhance the experience of graduates through degree utilization, keeping in line with the mission of the Pathway initiative.

The theoretical implications of this study were that CCR could influence how prepared graduates are for the rigors of continuing education or the workforce through

experiential learning theory (DiBenedetto & Myers, 2016; Schmidtke, 2017; Wariyo & Asgedom, 2021). There were also application overtones pertinent to pedagogy and curriculum design that could affect future degree, course, and curricular design. The study advanced the field's understanding of CCR, degree utilization, and the gaps in community college business programs. Additionally, this knowledge might provide a framework for other institutions to assess, develop, and rework their business programs to meet student, college, and industry needs.

Current literature on graduate CCR is often one-dimensional, focusing on a limited scope of variables, and usually does not compare online to face-to-face delivery methods. Morningstar et al. (2018) indicated that past CCR models lack holistic analysis, and future models need to close that gap through the inclusion of academic (i.e., cognitive development, knowledge structures, and behaviors) and non-academic factors (i.e., student disposition and engagement). The Pathway initiative adopted by SLCC has focused on developing academic and non-academic factors. It has specifically defined academic factors as classroom pedagogy, institutional career services, and employability skills. Non-academic factors (i.e., self-development) are categorized as self-efficacy, help-seeking, and goal setting (Area Study Design Team, 2020). The Gail Miller School of Business has lacked benchmarks for its programs, making it difficult to determine the efficacy of any changes made (i.e., Pathways). Additionally, the Gail Miller School of Business was unsure if its graduates were college and career-ready and if they were utilizing their degrees as intended. This study determined graduates' levels of CCR based on delivery method and examined the effect of academic and demographic factors on CCR. Furthermore, this study examined the relationship that CCR, delivery method,

degree type, and institutional career services had on degree utilization and provided insights to help SLCC's Gail Miller School of Business build a long-lasting competitive advantage.

Assumptions

1. The population used for this research represented graduates from the Gail Miller School of Business during the 2019-2022 school years.
2. Respondents were honest in their self-assessment of college and career readiness.
3. SLCC considers participants who took more than 80% of their classes online as predominately online students.
4. SLCC considers participants who took less than 80% of their classes online as predominately face-to-face students.
5. Online and face-to-face programs were equivalent in learning objective outcomes and college and career preparation.
6. Participants have established objectives and goals for attending SLCC.

Limitations

I have consistently taught in the Gail Miller School of Business since 2017, and I have made every attempt to remain objective. However, my involvement at the school could have influenced my decisions associated with the research topic, instrument development, variables selected for the study, data collection methods, and data analysis.

The data collected for this study would form a self-reporting survey of business school graduates, and, therefore, are subject to individual interpretation and perceptions. Lastly, some survey items come from National Association of Colleges and Employers (NACE) surveys, and though NACE is frequently used to measure employability skills, there is limited research on the validity and reliability of the NACE survey items.

The online and face-to-face student classification is not absolute and needs to be revised. Some graduates may have taken 75% of their classes face-to-face but are still classified as online because they did not reach the 80% threshold. In actuality, most graduates at SLCC are hybrid, taking some mix of online and face-to-face classes. The current classifications do not allow for a true comparison of absolute online pedagogy and absolute face-to-face pedagogy.

Delimitations

This study was limited to one community college's students who graduated from the Gail Miller School of Business in 2019-2022. Other students graduating outside the stated academic years were not included in the population and would have no chance of

being selected. However, many student characteristics might overlap significantly with other community colleges.

Definitions of Terms

This study uses the following terms and definitions.

College and career readiness: A graduate's ability to transition successfully from the education setting to a workforce setting. Successful transition is based on a graduate's ability to have confidence in their decision-making, apply and use their knowledge in real-world settings, have appropriate expectations for work outcomes (i.e., promotions, salary), and set and achieve goals (Mishkind, 2014).

Degree utilization: The establishment of goals and objectives connected to obtaining a degree or certificate, and the realization or completion of those goals and objectives post-graduation (Bailey et al., 2005).

Delivery method: This is the format a student selects to complete their degree (Rubenstein & Ridgley, 2017). This study looks at two different delivery methods, online and face-to-face.

Employability skills: These skills are essential to being successful in the workplace but are not specific to a chosen career path. These skills are universally applicable and determine how well an individual would do in a scenario requiring high adaptability (Costa & Kallick, 2009).

Face-to-face delivery method: When instruction, teaching, and learning take place at the same time at the same place synchronously (Purdue University, 2020). For this

study, we referred to the predominately face-to-face delivery method as students who take approximately 80% of their classes synchronously in person (Allen & Seaman, 2013).

Goals: The organizing and guiding of behavior over a prolonged period (Lent et al. 1994). Lent et al. (1994) further explained that the objectives are to maintain motivation without relying on external rewards, thereby enhancing the probability of achieving desired results.

Online learning: A form of distance learning over the internet (Stern, n.d). This study looked at predominately online degree programs, which means that 80% of the program was conducted on the internet asynchronously, and students had limited face-to-face interaction with the teacher or the students in the class.

Pedagogy: The study and application methods used to deliver course content to students (Peel, 2020).

Self-efficacy: The belief or confidence in oneself to behave in a way needed to complete a task. Self-efficacy is about exerting control over one's situation, including personal motivation, behaviors, and social environment (Bandura, 1977).

CHAPTER II

LITERATURE REVIEW

This chapter reviews existing theories and literature that influence CCR and degree utilization to illustrate the importance of this study and frame the foundation upon which this study was built. This chapter explains the history, uses, and common themes in CCR frameworks. Additionally, this literature review describes degree utilization and presents a conceptual framework that combines concepts and variables from existing studies and the CCR factors needed to evaluate SLCC business programs to address the study's research objectives. The conceptual framework takes a holistic approach to CCR, examining academic development, self-development, and academic and demographic characteristics.

Theoretical Framework

Experiential learning theory was a foundational theoretical framework used to explain the development of CCR within classrooms in higher education institutions (Burwell-Woo et al., 2015; DiBenedetto & Myers, 2016; Packer, 2022; Seow et al., 2019; Schmidtke, 2017; Zhou, 2022). This study used experiential learning theory to explain the development of CCR among Gail Miller School of Business graduates. Currently, all courses within the business school should follow an experiential pedagogy. Experiential learning theory draws upon the work of John Dewey, Jean Piaget, and Lev Vygotsky to

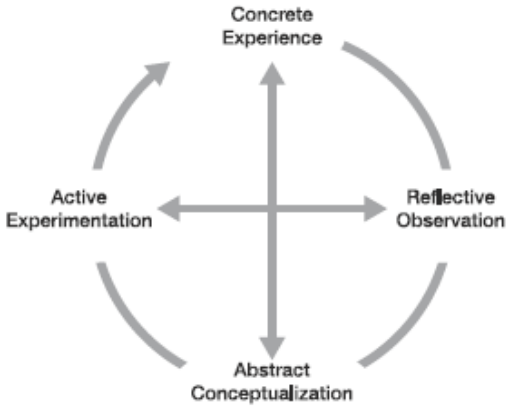
present a comprehensive theory that explains the process of exposure, reflection, and implementation of knowledge (Kolb, 1984).

Various studies have looked at the efficacy of experiential learning and how it aided in developing academic skills (e.g., technical and employability skills) and self-development skills (e.g., help-seeking and self-determination; Bennett et al., 2020; David, 2006; Deer et al., 2018; Jackson et al., 2016; McElroy, 2019; Mohapatra, 2015; Rodge & Gupta, 2020; Strusowski, 2013). Existing literature stated that experiential learning effectively aided in developing critical thinking, communication and listening, emotional intelligence, and persistence (Packer, 2022; Seow et al., 2019; Spanjaard et al., 2018). Additionally, experiential learning aided in developing technical skill attainment specifically developing self-efficacy, goal setting and accomplishment, and the likelihood of seeking help (Burwell-Woo et al., 2015; Spanjaard et al., 2018; Zhou, 2022).

When examining pedagogical practices in business education, experiential learning was one of the most common and most effective as it provided students with learning experiences that were directly applicable to real-world situations and allowed students opportunities to apply key concepts in a safe, low-stake environment (Kosnik et al., 2013). Further, students retained and benefited from educational practices that allowed them to apply their acquired knowledge simultaneously (Hanstedt, 2018). This idea conveyed those students benefited the most from their education when taught concepts and immediately applied them (Hanstedt, 2018; Weimer, 2013; Zull, 2002). This concept followed the experiential learning cycle model proposed by Kolb (1984), illustrated in Figure 1.

Figure 1

The Experiential Learning Cycle



Note. Adapted from *Experiential learning: Experience as the source of learning and development* Kolb (1984).

Based on this model, students needed exposure to concrete experiences, have designated time to reflect on the experiences, come up with an abstract hypothesis to apply the information, and lastly, act by testing information in new settings to achieve deep learning (Kolb, 1984; Weimer, 2013; Zull, 2002). Kolb (1984) stated that to gain genuine knowledge from experience, the learner must have four abilities: 1) be actively involved in the concrete experience, 2) be given time to reflect adequately, 3) be able to use analytical skills to conceptualize the experience, and 4) be able to test conceptual ideas. The key aspect to a concrete experience is not the type of experience, rather, the interaction with the experience (Hanstedt, 2018; Kolb, 1984; Zull, 2002). Kolb (1984) explained that a concrete experience must involve the senses and emotion to grasp new insights, emphasizing the importance of engaging with the experience firsthand. This step did not require much work from students.

At the reflective observation stage, students reflect on what they have experienced. Given time, this happens almost instinctively. During this time, students' minds associate abstract concepts with related ideas and knowledge (Zull, 2002). In the abstract conceptualization stage of the cycle, students made sense of what happened and seek to understand the events' relationship (Kolb, 1984). Students generate hypotheses and conceptualize what would happen given specific scenarios (Hanstedt, 2018; Zull, 2002). Active experimentation placed the data or information into a useful context for students and allows them to apply their ideas in a real-life scenario. This process allowed students to test their hypotheses and should occur in all SLCC business classes.

Defining Experiential

Because of the ambiguity of the term "experiential," it is important to have a clear idea of the meaning and goal of experiential learning. The Gail Miller School of Business adopted experiential learning to foster and introduce students to conditions, scenarios, and problems in continuing education and the workforce (SLCC, 2022a). SLCC focused on 14 High Impact Practices (HIPs) that constitute as "experiential (SLCC, 2022a). These 14 HIPs aim to provide students with experiences that would be directly applicable post-graduation. These HIPs included first-year course experiences, common intellectual experiences, diversity courses and co-curricular projects, community-engaged learning, internships/externships and co-operative education, e-portfolio, publication projects, learning communities, collaborative projects, problem-based learning, undergraduate research, global learning, capstone projects, and writing-intensive courses (Appendix A). By focusing on these HIPs, SLCC hoped to deliver meaningful learning experiences that

exposed students to the intricacies and rigors of their major, preparing them to meet the demands and qualifications. This study collected data from graduates on how their classes delivered on each of the tenants of experiential learning so that the Gail Miller School of Business can properly assess if their courses apply the recommended HIPs.

Connection to Business Education

Critics of business schools pointed to a lack of practical learning experiences as a significant issue (Kosnik et al., 2013). Because of these criticisms, accreditation boards emphasized academic, professional, and moral values to the student (Kosnik et al., 2013). With this emphasis, the hope was that students would graduate more prepared to meet workforce demands. This emphasis resulted in most business schools incorporating experiential learning as a foundational element of business pedagogy. Implementing experiential learning has allowed business education to aid in developing CCR effectively (Kosnik et al., 2013).

Gaps in the Online Application

Though using experiential learning in the classroom setting was highly effective, it may translate to a different effectiveness in online classes (Serdyukov, 2015). The delivery method may not cause differences in online class effectiveness; instead, it may indicate issues within the instructional design. Serdyukov (2015) indicated that online delivery methods may need a new pedagogical model to increase effectiveness. For example, designing online courses by transferring over face-to-face courses may limit concrete experiences or promote experiences with less active participation, affecting the

development of CCR. Limited concrete experiences in online classes resulted from limited student-teacher interactions, student-student interactions, and asynchronous delivery, further illustrating the need for online-specific pedagogy (Jaggars, 2014; Serdyukov, 2015; Xu & Jaggars, 2013).

Conversely, the findings in Hansen's (2008) study found that online education can be more effective than face-to-face delivery methods for applied learning, a key indicator of experiential learning. Hansen found that online participants developed these applied skills better because they dived deeper into the second and third stages of the experiential learning process, resulting in higher applied learning. The variance in measured effectiveness of online classes is a serious issue that needs addressing. Differences between delivery methods may be a matter of course design as opposed to delivery method; nevertheless, course designers need to take special care in applying delivery method-specific pedagogy that adjusts for the unique issues faced in online learning environments such as asynchronous curriculum delivery (Serdyukov, 2015). Suppose online courses lack a method-specific pedagogy. In that case, some experiential learning elements may be limited, causing gaps in learning outcomes that need addressing.

Program Evaluation

Program evaluation was an integral part of developing and optimizing school programs and initiatives. According to Mertens and Wilson (2018), program evaluation "systematically collect(s) data to inform decision making (p. V)." Program evaluation in this regard was relatively new because it involved figuring out what was needed to

address challenges through data collection and use (Mertens & Wilson, 2018). Program evaluation was essential to academia because it provided direction in the form of valuable data that helped optimize and reform programs to best meet their stated goals and objectives. With SLCC currently seeking to adjust its online and face-to-face business programs to develop CCR skills more effectively, a program evaluation was necessary. A summative evaluation was appropriate for this study because it happened later in the academic program's life cycle and after the Gail Miller School of Business had executed phase three of Pathways (Mertens & Wilson, 2018).

The Gail Miller School of Business at SLCC and its key stakeholders predetermined what they believed was required (i.e., college and career readiness) to achieve specific results (i.e., degree utilization). Therefore, a theory-based evaluation with a post-positivist paradigm was best suited (Mertens & Wilson, 2018). Theory-based evaluations often use logic or conceptual models to illustrate how those elements relate to each other (Mertens & Wilson, 2018). I created a conceptual model based on experiential learning theory, existing literature in CCR, and stakeholder input (Figure 2).

College and Career Readiness

CCR established a foundation for demonstrating core competencies, indicating potential success in future college or career endeavors (NACE, 2022). Whether in high school or college, CCR aimed to ensure that graduates were ready for their next step in life no matter what direction they chose to take. Because of this, many institutions adopted programs to better develop CCR skills in their graduates. SLCC has established

the specific CCR goal that all degree programs have implemented explicit employability skill training and assessment by fall 2023. Accomplishing this goal meant that each study area would establish a plan to develop industry-specific employability skills and apply those skills to the existing curriculum in a measurable and quantifiable manner. However, employability skills were not the only factor in CCR; it has many academic and non-academic elements (Lombardi et al., 2020), making CCR a complex issue.

Limited research was available that evaluated CCR development in community college programs, and those that did were limited in scope and lacked holistic measures (Durham, 2016; Harrell & Reglin, 2018; Harris, 2013). Because of its importance, many states, universities, high schools, and community colleges created CCR frameworks to define and classify important elements of graduate preparation. However, the definitions, elements, and terminology often differed and were ambiguous (Morningstar et al., 2018). SLCC did not have a specific CCR framework but used NACE to frame its career services and classify other important career readiness skills. Furthermore, SLCC used Utah Strands and Standards and Utah State Higher Education information to determine college readiness skills and requirements (Area Study Design Team, personal communication, November 1, 2019). Based on the use of these resources, I have created a CCR framework for this study (Figure 2) derived from NACE, Utah Strands and Standards, Utah State Higher Education, and existing CCR frameworks and surveys found in the literature. This framework is to be adopted by the Gail Miller School of Business as their official CCR framework, which can be adjusted to fit their specific needs as those change over time. Even though there was variability in CCR terminology, elements, and definitions, almost all CCR frameworks included two categories: academic

development and self-development (Conley, 2012; Lombardi et al., 2020; NACE, 2022; Welch et al., 2018).

Academic Development

Experiential Learning

Many business schools adopted experiential learning as their official pedagogy (Kosnik et al., 2013), which took students through developing hypotheses, problem-solving, gathering information, and analyzing data pertinent to a chosen profession. This approach worked well in traditional face-to-face settings, but failure to develop online courses that considered the unique environment of online classrooms resulted in discrepancies between the delivery methods (Serdyukov, 2015). Serdyukov (2015) noticed that a general, effective, and comprehensive online educational theory did not exist and found that many institutions designed online courses by simply taking traditional courses and applying them to an online framework. This approach was problematic because online learning environments were often asynchronous, less personal, student-centered, and fragmented (Serdyukov, 2015). Serdyukov (2015) looked at online education broadly but concluded that teachers with no experience or training in classroom pedagogy, such as business education, lacked online pedagogical skills. The questioning of online education's efficacy arose as a result. SLCC recently adopted experiential learning as its primary pedagogical focus for instruction (D. Bromley, personal communication, September 4, 2021), but few studies have applied experiential learning to assess CCR among degree programs at community colleges.

Employability Skills

For a graduate to succeed, specific skills must be mastered prior to graduation. Technical skill had long been the emphasis of education as it was the knowledge required to succeed in each field; however, there was a growing body of evidence that showed that purely academic factors did not sufficiently explain CCR and were not in alignment with the knowledge and skills needed for successful transition into higher education and the workforce (Morningstar et al., 2017). In recent years, more emphasis had been placed on employability skills because they were needed to gain a competitive advantage over other job candidates (Sethi & Gyan, 2016).

Employability skills were synonyms with soft skills, personality traits, interpersonal skills, non-cognitive skills, emotional intelligence, and habits of mind (Miller, 2019). Employability skills were on the spectrum of emotional intelligence quotient, which included a series of personality traits that determine how a person associates with others (Sethi & Gyan, 2016). It was important to note that employability skills did not replace technical skills and academic standards; rather, they worked side by side with other career skills to create a well-rounded candidate (Miller, 2019).

For this study, the definition of employability skills is from Costa and Kallick (2009), who stated that employability skills enabled an individual to behave intelligently when confronted with problems in which the answers are not immediately known. This definition was selected over others as it was the one that SLCC determined to use in its pursuit of employability skill development (SLCC, 2022b; D. Bromley, personal communication, November 1, 2019).

Employability skills grew in popularity and importance when it came to the assessment of CCR (Miller, 2019). The increased pressure from the industry to equip graduates with employability skills caused many schools of business to alter their curriculum to include the development of employability skills. Determining what employability skills were most important and how to assess these skills was problematic (Miller, 2019). Without continuity of what skills are needed and how to assess them caused inconsistency in results and quality of employability skill instruction. Furthermore, every individual resided at different inherent levels of employability skill, making it difficult to implement in a general classroom setting. To overcome the issue of inconsistency, the Gail Miller School of Business at SLCC, in conjunction with corporate partners (Area Study Design Team, 2020) and existing literature, has determined what employability skills were essential to CCR, as shown in Table 1.

Table 1

Employability Skill Definitions

Employability skills	Definition
Communication and listening	Effectively and appropriately communicate verbally, nonverbally, numerically, and in writing; and listening with understanding and empathy (Hart Research Associates, 2015; Area Study Design Team, 2020).
Critical thinking	Actively and skillfully conceptualizes, applies, analyzes, synthesizes, and/or evaluates information (Hart Research Associates, 2015; Area Study Design Team, 2020).
Emotional intelligence	Being aware of and able to control one's emotions along with recognition of the emotional states of others (Hart Research Associates, 2015; Area Study Design Team, 2020).
Persisting	Adapting and continuing towards completion of a goal despite difficulty, opposition, or failure (Hart Research Associates, 2015; Area Study Design Team, 2020).

This list of employability skills was developed to guide the business curriculum at SLCC and established benchmarks in career readiness (Area Study Design Team, 2020). The Area Study Design Team chose these four employability skills because they were foundational to other employability skills and were found within all year one courses and across all degree types and programs offered by the Gail Miller School of Business. This list was also consistent with employability skill findings found in existing research literature (Hart Research Associates, 2015; Mohamad et al., 2018). An examination from a Rhode Island governor's report illustrates the importance of employability skills in career readiness. This report found that 96% of chief academic officers in the region felt that their institutions were highly effective at preparing students for the workforce upon

graduation, whereas only 11% of business leaders felt the same (Commission on Higher Education & Employability, 2018).

Communication and Listening

Communication and listening were a vital component of CCR development. Research showed that effective communication and listening aided in academic success, interviewing, job search, and network and relationship building (NACE, 2022). Additionally, strong communication skills increased a student's ability to express their ideas, convey understanding, and submit deliverables that effectively met the assignment's requirements. Detgen et al. (2021) interviewed 23 participants from a Bridge to Employment program to determine what CCR measures were most important in achieving their goals. Thirty percent of the respondents reported that communication and listening were essential to their success and represented skills they could not gain from "ordinary school."

Critical Thinking

Critical thinking is often not explicitly taught within classrooms but was universally known as one important skill for students to learn (Lombardi et al., 2015). Lombardi et al. (2015) examined how critical thinking affected CCR among students. Using a hierarchical regression model, they found that critical thinking explained significant and unique variance in academic outcomes. They concluded that the findings clarified the need for and importance of assessing employability skills in measuring and evaluating CCR.

Emotional Intelligence

Emotional intelligence played a vital role in CCR by regulating emotions, resolving conflicts, and self-awareness. Mashigo (2014) examined the role that emotional intelligence had in the development of career readiness. Using multiple regression models, Mashigo found that emotional intelligence was a significant contributor to career readiness, specifically in the areas of work competence and organizational acumen.

Perseverance

In a paper discussing perseverance among online students, Azaiza (2011) discussed the elements that led students to stay active in class, complete assignments, and ultimately finish the course. Azaiza found that high levels of dialogue within the online environment (i.e., student-student, student-teacher) and low levels of structure (i.e., increased student autonomy) led to higher levels of persistence among students in online courses. Part of having high levels of dialogue and communication came from proper and effective syllabus development. Boettcher and Conrad (2016) found that students were more likely to persevere in a class when things got difficult when the course syllabus was clear and course expectations were established.

According to Dweck (2006), a growth mindset was a key component of perseverance. The idea was that failures were a means to an end. Once this was realized, students could see the purpose and usefulness of failure and not be discouraged by it. One example Dweck provided was that students' perseverance increased if they could resubmit past assignments and fix errors made. This act allowed students to be

comfortable with learning and look at failures or bumps in the road as part of the learning process.

Kossen and Ooi (2021) conducted a mixed methods analysis that focused on the application of micro-learning, which broke down course material into smaller, more digestible portions, and its effect on perseverance. This article focused on student satisfaction, grades, and completion rates, and the results indicated that courses that segmented the curriculum were more engaging, which led to increased completion rates, lifted performance, and higher levels of student satisfaction (Kossen & Ooi, 2021).

Self-Development

Help-Seeking

Help-seeking was crucial to student development in CCR (Nelimarkka & Hellas, 2018). Help-seeking involved reaching beyond readily available resources (i.e., textbooks, internet search) to peers, teachers, unknown web users, social media connections, and co-workers. Teachers played an essential role in promoting help-seeking behavior. As teachers establish clear and open communication channels that allow for low-barrier student-student and student-teacher dialogue, the likelihood and frequency of help-seeking behavior were exhibited (Chou & Bates, 2019; Nicol & Macfarlane-Dick, 2006; Salmon, 2013).

Additionally, Chou and Bates (2019) found that feedback on student assignments, as part of efficient scaffolding, aided in developing help-seeking. In their textbook *Teaching in a Digital Age*, Chou and Bates discussed how feedback developed a help-

seeking cycle that helped students overcome the struggle of learning new concepts, provide a deeper understanding of topics or subject matter, and aided in the transferability of knowledge.

In the context of CCR, Richards (2022) found that help-seeking or feeling empowered to ask for and accept help was shown to aid in CCR through developing critical thinking, deepening subject matter knowledge, and promoting academic success (e.g., graduation and degree utilization).

Nicol and Macfarlane-Dick (2006) identified seven principles and practices that supported self-regulation in learners. Self-regulation refers to "the degree to which students can regulate aspects of their thinking, motivation and behaviour during learning" (p. 199). Nicol and Macfarlane-Dick specifically found increased perseverance, self-determination, and help-seeking behavior. Peer reviews were a tactic used to help develop help-seeking behavior. Peer reviews provided feedback in language that was more accessible, which reinforced help-seeking behavior among peers. Nicol and Macfarlane-Dick discussed how this help-seeking behavior and feedback loop were fundamental to creating self-regulated learners.

Self-Determination

Self-determination was based on relational perspectives that explain an individual's goal-directed behavior motivated by self-efficacy, which determines social interaction (Deci & Ryan, 2002). Deci and Ryan (2002) found that individuals who set meaningful goals and received pertinent feedback enhanced student self-efficacy, leading to higher self-determination and academic success. In short, self-determination combined

the elements of goal-setting and self-efficacy, establishing a measure that focused on the internal capacity of an individual to have confidence in their abilities to accomplish personal goals.

Goals acted as a self-regulatory factor of behavior; the act of goal setting by students and graduates helped organize and guide their behavior (Greco & Kraimer, 2020; Lent et al.,1994). Goal setting was crucial for recent graduates because it acted as an intrinsic motivating factor over long periods, allowing that motivation to be sustained even without external reinforcements (Greco & Kraimer, 2020; Lent et al.,1994; Zimmerman, 2002). The use of goal setting further increased the likelihood of developing higher levels of CCR.

Self-efficacy refers to a learner's belief about their ability to perform a given task successfully (Puzziferro, 2008). Bandura (1977) stated that a crucial aspect of self-efficacy was the transferability of successful performance behavior to similar situations and activities substantially different from the originally intended application.

The combination of these two elements, goal setting and self-efficacy, made up the metric of self-determination that, according to Deci and Ryan (2002), became a strong measure of intrinsic motivation. Kuo (2018) suggested that self-determination led to academic success (i.e., knowledge gain, improved well-being, and long-term positive emotional equilibrium). Furthermore, student autonomy played an important role in the development of self-determination. Handstedt (2018), Weimer (2013), and Moll (1992) all discussed how allowing students to have more autonomy in their learning built confidence in the student's ability to set and achieve goals independent of the help of others and successfully transferred their knowledge to other situations.

Academic and Demographic Factors

Beyond the academic and non-academic factors that influenced CCR, the literature showed that demographic factors played a vital role in CCR development (Subedi & Powell, 2016; Wu, 2017). Wu (2017) used hierarchical linear modeling to determine what factors affected CCR. Wu entered demographic factors followed by institutional factors and found that gender, ethnicity, and age had a statistically significant impact on CCR.

Student academic and demographic characteristics influenced whether graduates used their degree (Bailey et al., 2005; Clotfelter et al., 2013; Wang, 2012). When assessing degree utilization, Bailey et al. (2005), Clotfelter et al. (2013), Doyle (2011), and Wang (2012) found that ethnicity, gender, age, first generation status, and enrollment status were significant influences on degree utilization among graduates where higher age, minority groups, and part-time enrollment lowered the probability of degree utilization. SLCC focused on creating programs that were inclusive and supporting diverse perspectives. Understanding student demographic characteristics and their struggles can help SLCC develop programs, offer services, or implement systems that support the needs of non-traditional student populations.

Grade point average (GPA) was an academic factor that demonstrates the competency level possessed by an individual to perform the necessary functions of a selected career path or to succeed in continuing education. GPA was used to determine academic performance (Mehmetaj & Alili, 2021; Welch et al., 2018). Mehmetaj and Alili (2021) looked at college educational and skill attainment to see if it affected their future

employment (i.e., degree utilization). They used GPA as their educational and skill attainment metric because it was believed to be an index of successful job-related outcomes. In other words, GPA was a good measure and indicator of the development of CCR. In this study, Mehmetaj and Alili surveyed 267 graduates between the years 2009 and 2019 to determine the role of GPA in career preparation. Using logistic regression, GPA significantly explained graduate employment, where students with higher GPA scores were associated with higher career preparation (i.e., CCR) and employment rates (i.e., degree utilization). Lyons and Bandura (2017) reported that 67% of firms screened job candidates based on GPA, indicating that GPA was the primary measure to determine technical skill capability. GPA was also important to admissions in higher education institutions.

GPA was associated with degree utilization elements such as the ability to receive scholarships and financial aid, get accepted into transfer institutions, and achieve a competitive advantage in the job market. Because of its importance, existing research recommended the implementation of first year experience programs, increasing teacher-student engagement, more strict attendance monitoring, and early intervention measures to help increase GPA levels, especially within the first academic year (Dery, 2009; Graham et al., 2022; Jamelske, 2009; Nordmann et al., 2019; Sun et al., 2022).

Explanatory Variables

Delivery Method

Studies showed the disparity between delivery methods resulting in inconclusive results on outcomes of online delivery method in comparison to face-to-face delivery method (Emerson & MacKay, 2011; Figlio et al., 2013; Serdyukov, 2015; Xu & Jaggars, 2013). SLCC was offering business students the option of completing their degree online or face-to-face and providing students access to success coaches and advisors to help students stay on track and meet their educational goals (SLCC, 2021b). Online courses at SLCC were developed by taking existing face-to-face courses and using two faculty members and one instructional designer to convert the content into an online model. This method attempted to preserve the experiential learning elements of the face-to-face class by keeping the high impact teachings practices included in the face-to-face classes. However, SLCC needed to adapt the HIP elements from the face-to-face classes for online classes to remain effective. Online business programs at SLCC have experienced issues common to some online programs, such as high attrition rates and lower levels of teacher-student and student-student interactions (K. Grooms, personal communication, January 6, 2022).

Online Education

Bryson and Andres (2020) indicated that online education was in a rapid stage of growth, which was exasperated by the COVID-19 pandemic, forcing all education institutions to adopt this innovation. The forced adoption of online education pushed it

from the stage of growth into maturity in the product life cycle (Allen & Seaman, 2011, 2013, 2016; Pentina & Neeley, 2007), leading to increased competition among institutions (Product Life Cycle Stages, 2020; Solomon et al., 2018). Existing online education literature examined performance, student development, and outcomes but left many questions unanswered (Gray & DiLoreto, 2016; Horzum, 2017; Kurucay & Inan, 2017; Ladyshewsky, 2013; Nortvig et al., 2018; Parahoo et al., 2016).

Face-to-Face Education

Face-to-face education was conducted synchronously, with teacher and students simultaneously in the same place. Face-to-face education focused on lectures, group work, labs, and other collaborative activities (Iowa State University, 2022). The face-to-face classroom learning environment significantly benefited student-to-instructor and student-to-student interaction (Fish & Snodgrass, 2020). Because of the increased student-to-student and student-to-instructor interactions, support systems for the student naturally existed in the delivery method model, which aided in student motivation and lowered attrition rates (Fish & Snodgrass, 2020; Jaggars & Bailey, 2010).

Delivery Method Disparity

In a study comparing the effectiveness of online education to traditional education, Soffer and Nachmias (2018) looked at multiple variables, such as instructional aspects within courses (e.g., experiential learning), to determine the differences in effectiveness between delivery methods. Soffer and Nachmias (2018) used a two-way

ANOVA to analyze data from 968 students and found that the online delivery method was just as effective, if not more, than the face-to-face delivery method.

In contrast to the findings of Soffer and Nachmias (2018), Jaggars and Bailey (2010) found that online courses outperformed face-to-face courses only when students had extra time or attention given to them. Additionally, online education did not harm the "well-prepared" student; however, for those outside of that category, "an expansion of online education might not substantially improve access and might undercut academic success and progression through school" (p. 11). This response claimed that student motivation and preparedness was a significant factor that contributes to the equivalent performance of students in online courses.

Many of the performance gaps between online and face-to-face delivery methods were results of factors such as gender, ethnicity, age, and previous academic performance (Xu & Jaggars, 2014). With performance variations increasing because of demographic characteristics, care must be taken in the instructional design of online courses to decrease outcome inequities and close the performance gap.

Institutional Career Services

When it comes to degree utilization, the role of the institution was essential to the success of students (Helbig & Matkin, 2021). According to Helbig and Matkin (2021), of the students who participated in the offered career services, the majority felt their university played a vital role in their career development. The career services not only familiarized students with the job seeking process, but they also provided valuable

resources that helped students meet industry requirements and be competitive in the job market (Helbig & Matkin, 2021).

The mission and goals of SLCC Career Services were to (a) provide and enhance student career exploration and career development, (b) facilitate opportunities for meaningful career-related learning experiences through work-based learning for credit, (c) teach job search and career development skills that made students competitive and marketable to employers, (d) assist students with immediate employment needs while attending school, and (e) serve employers in the recruitment of employees to meet industry needs (E. Butler, personal communication, July 26, 2021). In short, the institutional career services offered by SLCC were aimed at aiding students in utilizing their degree.

SLCC established career services based on the rules, regulations, and best practices put forth by NACE. SLCC offered a wide array of career services to both online and face-to-face students to assist them in making informed career decisions and developing career materials that aided in their post-graduation transition (Table 2). SLCC Career Services offered a team of career coaches and employer specialists who supported students and alumni by helping them create individualized life plans. SLCC Career Services focused on helping students to understand better who they are, what they want to do professionally, and how they can get there (SLCC, 2021b).

Table 2

SLCC College and Career Services

Career services	Definition
Work for credit	Cooperative education allows students to use traditional employment to gain new skills and knowledge related to their academic major by creating and completing program specific learning objectives that are supported and evaluated by their current supervisor (and faculty advisor), resulting in graded academic credit.
Focus 2 career	Focus 2 Career is a self-paced career guidance tool designed to help select the right study area, explore career options, and provide valuable occupational information.
Personality, interest, and career assessment	SLCC offers the Myers Briggs personality assessment, which is often used to help in career planning.
Virtual job shadow	VirtualJobShadow.com helps students discover, plan, and pursue their dreams with a video-based career planning platform. The interactive tools help students and job seekers develop career paths based on choice, not chance.
Job search training	Assists students with career-related skills like honing job search strategies, fine-tuning resumes, leveraging their online presence, and acing job interviews.
Career workshops	SLCC offers free career and employment workshops, including resume basics, interviewing, job search basics, networking, and career exploration.
Service learning	Empowering students to realize they have the knowledge and skills to affect positive change in their community and establish capacity-building relationships with community organizations.
Campus internship program	The Campus Internship Program (CIP) is a paid internship opportunity with an on-campus office or department. CIP provides students with professional development, new learning opportunities, and career mentorship.
Study abroad	Study abroad prepares students to be global citizens, engaged learners, and scholars through integrating classroom and community-based experiential learning.
Job fair	Designed to bring together employers and attendees in a two-part event to create more opportunity for students to connect and foster a great connection with SLCC employers/organizations in Salt Lake City and the State of Utah at large.

Strusowski (2013) examined how Delaware Technical Community College used NACE supported career services and technology to increase student offering and

potential success in establishing college or career placement post-graduation (i.e., degree utilization). The study found that 61% of respondents were aware of the institutional career services offered at Delaware Technical Community College but only 20% of graduates had utilized career services during their education. Strusowski found that the respondents who used career services were very satisfied with their career services experience; however, the location of the career service center was the biggest reason for students not using offered career services. The use of the service center depended on a convenient location. Strusowski not only found important reasons for why students did not participate in career services (i.e., accessibility) but also highlighted how career services played an important role in degree utilization.

Degree Utilization

Much of the existing research on degree utilization focused on graduation rate, employment rate, and transfer rate as their primary measures for successful degree utilization among community colleges and four-year institutions (Clotfelter et al., 2013). Traditional bachelorette programs saw many of their graduates enter the workforce, whereas community colleges saw most of their graduates go on to complete additional degrees (Monaghan & Attewell, 2015). Simply measuring employment rate and transfer rate did not fully explain if graduates used their degrees (Clotfelter et al., 2013). Degree utilization is a multi-factor issue involving the use of CCR skills gained through the education process (Wang, 2012), the networks students built while attending school (Eunyoung, 2009), and the effect of school experiences on out-of-school issues (Pugh,

2011). These three factors provided a well-rounded picture on how useful a degree was based on using what was gained while attaining the degree or certificate.

Current literature indicated lower levels of degree utilization among community college graduates (Bailey et al., 2005; Monaghan & Attewell, 2015; Wang, 2012). The lack of degree utilization can be explained in part by the shift of college and career goals, loss of credits when transferring, unanticipated life circumstances, and need for additional skills (Bailey et al., 2005; Monaghan & Attewell, 2015).

Zhang et al. (2019) conducted a longitudinal study that followed subjects for 10 years, from their junior year in high school until they were 26 years old, to measure the effects of demographic factors on degree utilization. They measured race/ethnicity and gender as demographic factors and found that the effects of these demographic factors were imperceptible.

Crisp et al. (2009) performed a logistic regression and examined race/ethnicity, gender, first-generation status, and GPA and their effects on community college STEM transfers to four-year universities in a Hispanic Serving Institution. Crisp et al. found that first-generation status was not significant in predicting transfer path degree utilization. However, they did find race/ethnicity, gender, and GPA was significant in predicting degree utilization. Crisp et al. felt other variables could have explained the significance of gender as a predictor and recommended additional research be conducted.

Bailey et al. (2005) found that ethnicity was one of the most statistically significant factors contributing to community college students not utilizing their degrees. This study was limited in that it only assessed demographic characteristics to determine degree utilization, illustrating the need for more holistic approaches to degree utilization.

Wang (2012) looked beyond demographic factors by assessing employability skill development to determine how they explained graduate degree utilization. Using a dichotomous dependent variable and a sequential logistic regression, Wang found that employability skills played a significant role in the degree utilization of community college graduates. Wang recommended that community colleges do more work and analysis to understand and promote long-term graduate degree utilization.

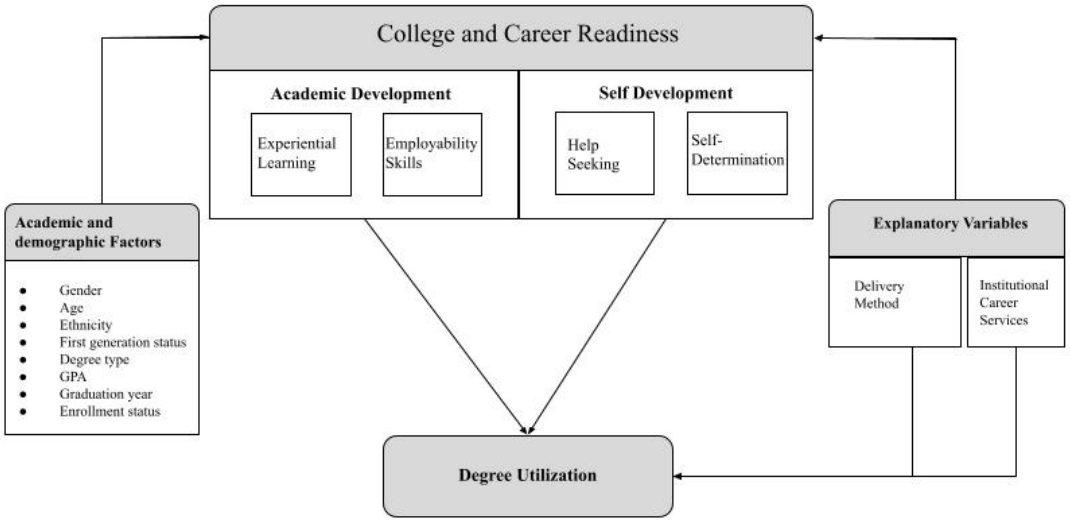
It was important to consider that the influence of demographic factors can be complex and contextual, and findings undoubtedly differ based on the specifics of the population, region, and institution.

Conceptual Framework

The conceptual framework combined the needs of SLCC, experiential learning theory, and the literature on CCR factors and degree utilization. As seen in Figure 2, this framework illustrates the factors of academic development and self-development as an integral part of CCR. Additionally, this framework looked at the academic and demographic characteristics, delivery method, and degree type of graduates that could explain Gail Miller School of Business graduates' CCR. Lastly, this framework explained how the CCR factors, delivery method, degree type, and institutional career services influence degree utilization. Experiential learning theory framed CCR by focusing on providing an environment for students to safely develop and test ideas, which is foundational to the development of CCR.

Figure 2

College and Career Readiness Framework



Summary

The literature review found that experiential learning theory was foundational to CCR and pertinent to business-focused curricula. Additionally, CCR measurements were unique depending on the needs, scope, and objectives; however, academic and personal development were common in most CCR assessments. Lastly, degree utilization among community college graduates fell between two main goals: career progression and continuing education. Degree utilization often looked at demographic factors to determine how and if graduates utilized their degrees.

CHAPTER III

METHODOLOGY

This chapter discusses the methodology used to evaluate the online and face-to-face business degree programs at SLCC. The data comes from the college and career readiness survey developed to address the study's research objectives. This chapter describes the participants, instrument, pilot test, validity and reliability measures, data collection process, and data analysis.

Purpose and Research Objectives

This study evaluated college and career readiness between online and face-to-face business school graduates and determined what factors explain CCR and degree utilization. The following research objectives guided this research:

1. Describe the academic and demographic characteristics of Gail Miller School of Business graduates.
2. Compare academic development and self-development between online and face-to-face graduates from the Gail Miller School of Business.

   H_0: Graduates who completed online degrees compare equally to face-to-face graduates in academic development and self-development.
3. Determine what influence delivery method and academic and demographic characteristics had on CCR among Gail Miller School of Business graduates.

H_0: Academic and demographic factors do not influence CCR among Gail Miller School of Business graduates.

4. Describe why graduates attended SLCC, how they are using their degree/certificate, and why some graduates did not use their degree/certificate.
5. Explain how delivery method, CCR, and degree type influence degree utilization among Gail Miller School of Business graduates.

Research Design

This study followed a nonexperimental research design with correlational analysis to gather cross-sectional data from SLCC business school graduates. I gathered academic and demographic data, delivery method, CCR data, and degree type from the Qualtrics survey (McCombes, 2023).

Population

This study's population was graduates from the business programs at SLCC: management, marketing, accounting, finance, and computer science and information systems. The total population was 1,895 graduates from fall 2019 through spring 2022. Because of the relatively small size of the population, I opted for an attempted census approach of 2019-2022 Gail Miller School of Business graduates to increase survey participation. Since not all individuals in the population responded to the survey, I used inferential statistics to extrapolate meaningful insights about the entire population

(Freedman et al., 2007; Knaub, 2015). This approach allowed me to draw conclusions while accounting for the nonresponse (Williams, 1978). According to Dillman et al. (2014), online surveys typically have a low response rate of 10–15%.

SLCC Institutional Research department generated the email list based on the population parameters provided. The email list contained graduates' email addresses and names and was deleted after the researcher sent the survey.

Instrumentation

I provided information about the nature of the study in the letter of consent placed at the beginning of the survey (Appendix B). The CCR survey combined items from four instruments, existing literature, and the input of SLCC program stakeholders. The instruments used to develop the CCR survey come from the following sources: World Learning (2020), NACE (2021), Cheng and Tsai (2011), Young et al. (2008), and researcher-developed items. Since SLCC program stakeholders consider online and face-to-face courses equivalent in student outcomes, all participants received the same survey to accurately compare the delivery methods. Table 3 summarizes the instruments adapted to create the CCR survey. Furthermore, respondents were offered a one-question survey (Appendix C) for those interested in entering a drawing for one of nine $25 Amazon gift cards.

Table 3

Summary of Measures Used to Develop CCR Survey

Measures	Variable	Items from NACE (2021)	Items from Cheng and Tsai (2011)	Items from Young et al. (2008)	Items from World Learning (2020)	Items developed by researcher
Experiential learning						
Concrete experience	5-point Likert			Item 3		
Reflective observation	5-point Likert			Item 4		
Abstract conceptualization	5-point Likert			Item 5		
Experimentation	5-point Likert			Item 6		
Explanatory variables						
Delivery method	Nominal	Item 1				
Institutional career services	4-point Likert	Item 7				
Employability skills						
Critical thinking	5-point Likert				Item 8	
Emotional intelligence	5-point Likert				Item 9	
Communication and listening	5-point Likert				Item 10	
Persistence	5-point Likert				Item 11	
Self-development						
Help-seeking	5-point Likert		Item 14			
Self-determination	5-point Likert				Items 13, 15	Item 16
Degree utilization	Nominal	Items 18-19				
	5-point Likert					Item 17
Demographic factors	Nominal					Items 21-23, 25
Academic factors	Nominal					Items 2, 20, 24
	Interval					Item 12

Measures

Academic Development

Experiential Learning. The experiential learning construct included 12 statements about respondents' classroom learning experiences covering each of the four experiential learning subconstructs (i.e., concrete experiences, reflective observation, abstract conceptualization, and experimentation) from the Experiential Learning Stages Scale. Their answers were ranked on a 5-point scale (1 = *strongly disagree* to 5 = *strongly agree*) and provided continuous data. Each of the four subconstructs has three items scored from 3-15, with scores of 15 in each section indicating that the classroom experiences strongly delivered on the specific tenet of experiential learning. Young et al. (2008) reported a Cronbach's alpha of .95 for the reliability of the Experiential Learning Stages Scale.

Employability Skills. Items 8-11 measured four employability skills: critical thinking, emotional intelligence, communication and listening, and persistence. These items were adapted from WLSVA World Learning (2020), asking participants to self-assess their employability skills at the time of their graduation on a 5-point Likert scale (1 = *strongly disagree* to 5 = *strongly agree*). Critical thinking scores ranged from 6-30 with a reported reliability of .87. Communication and listening scores range from 5–25 with Cronbach's alpha reliability score of .76. Perseverance scores range from 4–20 with a .78 reported Cronbach's alpha. Emotional intelligence (EQ) scores range from 4–20 with Cronbach's alpha reliability of .77 (Dershem, 2020). Higher scores indicate higher self-perceived employability skills.

Self-Development

Help-seeking. Item 14, adapted from Cheng and Tsai (2011), determined the likelihood of the participants' willingness to seek help from a list of common influential people. This subconstruct has six items that asked participants to rank using a 5-point Likert-scale (1 = *strongly disagree* to 5 = *strongly agree*). This question provided continuous data scored from 6-30, with a score of 30 indicating high levels of perceived help-seeking. Cheng and Tsai (2011) reported an overall internal reliability alpha of .77.

Self-determination. Self-determination was a summated score of items 13, 15, and 16 that measure self-efficacy and goal setting. For item 13, I adapted the WLSVA self-efficacy questionnaire. Item 13 contained four items and asked participants to rank their answers on a 5-point Likert scale (1 = *strongly disagree* to 5 = *strongly agree*) on their level of confidence in completing tasks. This question provided continuous data and was scored from 4–20 with 20 indicating the highest level of perceived self-efficacy. Dershem (2020) reported an internal reliability alpha of .77 for self-efficacy questions. Items 15 and 16 determined if participants had goal-setting experiences while attending SLCC and if they could set and achieve meaningful goals. Item 15 consisted of four statements asking participants to rank their ability to set short and long-term goals, confidence in completing them, and the importance of accomplishing them. Item 16 asked participants about the frequency of goal setting within their business classes. I scored each item from 1 (*strongly disagree*) to 5 (*strongly agree*), providing me with continuous data. Dershem (2020) reported the internal reliability alpha of .78 for the goal

setting items. I summated the scores from these measures to create a self-determination score.

Explanatory Variables

Delivery Method. Item one determined which type of delivery method the respondent primarily participated in while attending SLCC. The question allowed the respondent to select one of two options (i.e., 80%–100% of their classes were taken online and less than 80% of their classes were taken online). Those that select the first option are placed in the category of "online" delivery method and those that selected the second option were put in the category of "face-to-face" delivery method. I created this measure based on the delivery method classifications provided by SLCC and this question provided nominal data.

Institutional Career Services. One question adapted from NACE (2021) asked respondents about using SLCC career services. Item six asked participants to rank how helpful 10 career services were while attending SLCC on a 4-point scale (1 = *very unhelpful* to 4 = *very helpful*) or select "not used" if participants did not use the career service. I assessed and measured each institutional career service individually, so SLCC can know what specific career services were helpful to students CCR. This question provided ordinal data.

Academic and Demographic Factors

Academic factor information was collected by asking respondents to report their degree type, graduation year, enrollment status, and GPA. Cassady (2000) found that

self-reporting of GPA was highly reliable and sufficiently accurate. Cassady recommended that respondents self-report their GPA when there was limited access to official records, privacy issues, and administrative rules prohibiting its use. Because of the sensitivity of the information, and the difficulty in acquiring the data, I opted for the self-reporting of GPA. Item 12 asked participants to report their overall GPA. This question provided interval-level data.

Demographic information was collected by asking participants four questions in the survey to describe the participants based on gender, ethnicity, first-generation status, and age. Age provides interval-level data, whereas gender, ethnicity, and first-generation status are categorical.

Degree Utilization

Degree utilization was the dependent variable for the linear regression and multiple regression models in research objective 5. Participants reported the frequency with which they used their degree based on the elements of skills, network, and experience. I measured this variable by summating the score of three 5-point Likert-scale items (1 = *never* to 5 = *always*). Higher Likert-scale summated scores indicated higher levels of degree utilization and provided continuous scale data.

Research objective 4 describe why students chose SLCC for their degree and how they are currently using their degree. To accomplish this, participants stated their degree type and based on their answer, they were filtered to one of two paths. Career emphasis

respondents had a question path consisting of 10 categorical questions to assess how they have utilized their degree after graduation. The college transfer path asked one question to determine where they are in transfer process. I adopted the items used in this section from the NACE (2021) First Destination for the College Class of 2020 survey.

Threats to Validity

SLCC did not clearly distinguish what constitutes an online or face-to-face student, making it difficult to compare delivery methods. The lack of a clear demarcation between the delivery methods can skew the data. The absence of a pre-program assessment of student CCR skills further threatened the validity of the findings (Bamberg et al., 2012). Furthermore, this study was nonexperimental, and respondents self-selected into either online or face-to-face delivery methods. Lastly, internet surveys increase non-response errors and selection errors. Dillman's tailored design method helped mitigate non-response and selection errors.

Reliability and Validity

I conducted a pilot study to establish the reliability of the Likert-scale constructs in the survey, address any logistical concerns with the data collection process, and gather feedback from the participants before conducting the main study. I sent the survey to 263 individuals who were not included in the main study, representing 10% of the population (Nieswiadomy, 2002). A total of 22 graduates completed the survey. However, only 19 of the 22 surveys could be used because of missing data, for a 7.22% completion rate.

After collecting data from the pilot test, I used IBM SPSS Statistics (Version 29) to determine the reliability of the Likert-scale items. According to Field (2013), a reliability coefficient value of .70 to .80 is an acceptable level in social sciences, whereas a level of .90 or higher is excellent. Table 4 shows the Cronbach's alpha levels of the pilot study, and the post-hoc analysis of the final survey data.

Table 4

Construct Reliability Estimates of the Survey Instruments

Instrument construct	Cronbach's α pilot	Post-hoc Cronbach's α
Experiential learning	.95	.95
Critical thinking	.96	.97
Communication and listening	.94	.94
Perseverance	.90	.92
Emotional intelligence	.86	.93
Help-seeking	.77	.77
Self-determination	-	.93
Self-efficacy	.91	-
Goal setting	.88	-
Degree utilization	.74	.78

Note. A dash was used for measures not a part of the analysis.

I assessed critical thinking after graduation using a 5-point Likert scale (1 = *strongly disagree* to 5 = *strongly agree*). The question had an initial Cronbach's alpha value of .95. Table 5 shows all the statements within the question. The statement crossed out was not used for the final survey to increase the Cronbach's alpha and shorten the time required to complete the survey. The final alpha coefficient level increased to .96 after removing item five.

Table 5

Items Measuring Critical Thinking

Item	Scale mean if item deleted	Scale variance if item deleted	Corrected item-total correlation	Squared multiple correlation	Cronbach's α if item deleted
When you graduated you knew how to develop plans to achieve your objectives.	20.39	27.43	0.82	0.87	.95
When you graduated, you could develop step-by-step plans to reach your goals.	20.33	27.77	0.85	0.87	.95
When you graduated, you knew how to find the causes and solutions to a problem.	20.17	28.27	0.90	0.96	.94
When you graduated you could develop new tools and methods to resolve problems.	20.22	27.95	0.90	0.97	.94
~~When you graduated, you knew how to manage your time.~~	20.5	28.27	0.75	0.86	.96
When you graduated you could take concrete actions to implement your plans.	20.33	26.59	0.97	0.97	.93

Note. Each item is summated and scaled from one to five with a score of 20 indicating they "strongly agree" with each statement.

I assessed help-seeking using six statements to determine participants ableness to seek help from various sources. The original alpha coefficient was .70. Table 6 illustrates the original six items. The statements crossed out were not used in the final survey. After removing items two and six, the alpha coefficient increased to .77.

Table 6

Items Measuring Help-Seeking

Item	Scale mean if item deleted	Scale variance if item deleted	Corrected item-total correlation	Squared multiple correlation	Cronbach's α if item deleted
When you graduated you sought relevant help using search engines (e.g., Google, Yahoo).	17.83	20.38	0.30	0.45	.73
~~When you graduated, you felt comfortable emailing superiors, teachers, or co-workers to seek help.~~	17.83	22.27	0.12	0.31	.76
When you graduated, you would post questions or messages on relevant web forums requesting unknown experts' help (e.g., Reddit).	19.00	16.35	0.58	0.37	.65
When you graduated, you would seek proper websites, forums or Bulletin Board System (BBS) to ask for unknown experts' help.	19.22	14.89	0.63	0.58	.63
When you graduated, you sought peers' help in person or through social media systems.	19.39	13.66	0.75	0.60	.58
~~When you graduated, you sought relevant help from family members.~~	18.39	17.90	0.38	0.39	.72

Note. Each item is summated and scaled from one to five with a score of 20 indicating they "strongly agree" with each statement.

A panel of experts with expertise in career and technical education, business, instructional technology, and questionnaire design established content and face validity. At the end of the pilot test, I asked participants four open-ended questions on the clarity of the questions, the organization and structure of the survey, and asked participants

about their general thoughts and concerns regarding the survey instrument. I evaluated face validity by analyzing the responses to these questions. Minor changes consisted of excluding questions about household income level while in school and upon graduation and eliminating questions that reduced construct validity to cut down on the amount of time need to complete the survey.

Data Collection

After approval from the Utah State University Institutional Review Board, data collection followed Dillman's tailored design method to encourage participation using multiple contacts, properly timing the multiple contacts, and keeping contacts short and to the point (Dillman et al., 2014). The participants were contacted via emails sent through Qualtrics. I saved the email list provided by SLCC Institutional Research in a password-protected Excel document, and the file was deleted immediately after the recruitment emails were sent.

Each contact was given the opportunity to unsubscribe from further communication at any time. The first email introduced participants to the study and invited them to participate (Appendix D). The email contained the link to access the survey. The first reminder email was sent seven days after the initial email (Appendix E). The final email (Appendix F) served as a reminder and thank you and was sent one week after the first reminder. This recruitment process took place during the first three weeks in April 2023.

To address non-response error, I compared two groups of survey respondents, early and late responders. The early responders completed the survey before the first reminder email was sent out, whereas late responders completed the survey after receiving the first email reminder. I conducted a Mann-Whitney *U* test to compare their scores on degree utilization. I used a significance level of .05 for the analysis. The results revealed no significant differences between early and late respondents in terms of degree utilization. These results indicate that non-response bias was effectively mitigated (Lindner et al., 2001).

Data Analysis

Data were downloaded from Qualtrics and analyzed using IBM SPSS Statistics (version 29). I reviewed the data for abnormalities and missing entries. For research objective 1, descriptive statistics (frequencies and percentages) described the academic and demographic characteristics of SLCC business school graduates.

For research objective 2, Mann-Whitney *U* tests compared online and face-to-face delivery methods by CCR factors. I used delivery method (i.e., online or face-to-face) as the independent variable for the Mann Whitney U analysis comparing each subset of academic development (i.e., experiential learning and employability skills) and self-development (i.e., help-seeking, self-determination). The Mann-Whitney *U* tests were used in place of independent sample t-tests because the data was ordinal and did not meet the assumption of normal distribution.

To answer research objective 3, 21 two-way ANOVA models were employed to compare the mean scores of the CCR factors between delivery methods and gender, ethnicity, and first-generation status. The two-way ANOVA aims to understand the main effect and interaction effect between the two independent variables on the dependent variable. By testing the interaction between the two independent variables (i.e., demographic factors, and delivery method), I could determine if the interaction of demographic factors explain any of the statistically significant variations (Van Breukelen & Van Dijk, 2007; Vermeulen & Vansteelandt, 2015).

Additionally, I ran 14 multiple regression models to examine the relationship between delivery method, GPA, and age on CCR factors. This measurement assessed the impact of the independent variables of age and GPA (i.e., academic and demographic factors) on the various CCR factors. Age and GPA were measured on the interval level.

Research objective 4 used frequencies and percentages to explain the impact participants felt their degree had on their stated goals (i.e., degree utilization). The survey included one question that determined how often they used the skills, network, and experience they gained at SLCC. If the respondents stated that they never used any elements of their degree, they were asked why.

After determining the usefulness of respondent's skills, network, and experience I used frequencies and percentages to explain the usefulness of a SLCC degree for career path graduates. To determine this, I assessed respondents' level of agreement with the statements that they are actively looking for a job, if they have had interviews since graduating, if they have received job offers since graduating, and what they have learned at SLCC has helped in the job search process.

Next, I asked participants to state how their degree has specifically helped them and gave them multiple options to select all that apply. I reported frequencies and percentages for the answers to this question.

Lastly, the final portion of this research objective asked respondents who completed a continuing education degree where they are in the process of transferring to another institution. This question asked participants to select the most appropriate answer as to their status. I summarized the results using frequency and percentages.

I addressed research objective 5 using one multiple regression and two linear regression models to explain how CCR factors, delivery method, and degree type affect degree utilization. The independent variables were CCR variables (i.e., experiential learning, employability skills, help-seeking, and self-determination), delivery method, and degree type. These variables were all used in separate regression analyses to explain degree utilization (i.e., the dependent variable).

The institutional career services provided ordinal level data, and a correlation analysis was required to examine its relationship with degree utilization. Correlation analyses measure the strength and direction of association between variables measured on an ordinal scale (Gogtay & Thatte, 2017). Due to the limited sample size of individuals who used college and career services and the violation of sample normality, the most suitable correlation analysis was Kendall's Tau test (Field, 2013).

Summary

The chapter explained the method, design, population, instrumentation, and data analysis used to evaluate the online and face-to-face business programs at SLCC. The data analysis procedures were consistent with a summative post-positivist paradigm approach to research and a theory-based evaluation framework. In the subsequent chapters, I use the results of the data analysis to address the research objectives of this dissertation.

CHAPTER IV

RESULTS

This chapter provides the findings and analysis of the data collected in this research study. I discuss the results by research objective, including appropriate tables. This study evaluated college and career readiness between online and face-to-face business school graduates and determined what factors explain CCR and degree utilization. Specific research objectives guiding this study were the following:

1. Describe the academic and demographic characteristics of Gail Miller School of Business graduates.
2. Compare academic development and self-development between online and face-to-face graduates from the Gail Miller School of Business.

   H_0: Graduates who completed online degrees compare equally to face-to-face graduates in academic development and self-development.
3. Determine the influence of delivery method and academic and demographic characteristics on CCR among Gail Miller School of Business graduates.

   H_o: Academic and demographic factors do not influence CCR among Gail Miller School of Business graduates.
4. Describe why graduates attended SLCC, how they are using their degree/certificate, and why some graduates did not use their degree/certificate.
5. Explain how delivery method, CCR, and degree type influence degree utilization among Gail Miller School of Business graduates.

Response Rate

Survey participants consisted of SLCC graduates from the Gail Miller School of Business between 2019 and2022. I used an attempted census in hopes of increasing survey participation because online surveys typically have around a 10% response rate (Dillman et al., 2014). Freedman et al. (2007), Knaub (2015), and Williams (1978) state that when a population census is attempted but remains incomplete, inferential statistics are to be used to analyze the data to make generalizations regarding the population. However, the generalizability of the analysis is dependent on the representativeness of the respondents in the attempted census.

SLCC Institutional Research provided a contact list of graduates. After I removed duplicate email addresses from the list, the population for the study consisted of 1,895 graduates. After the pilot study, I contacted 1,632 graduates via email to participate in the actual study. The response rate for the survey was 5.82% (n = 95). I was only able to use 83 surveys of the 95 submitted. Of the usable surveys, 53.01% of respondents (n = 44) completed their degree face-to-face and 46.99% (n = 39) completed their degree online. I used G*power to determine the generalizability of the statistical analyses; This study had a 5.83% response rate (n = 95). This allowed for an effect size of .10 in running the regression analyses (Faul et al., 2009).

Research Objective 1

Research objective 1 sought to describe the academic and demographic characteristics of Gail Miller School of Business graduates overall and by delivery method. The academic characteristics described in this research included graduation year, degree type, enrollment status, and GPA, while the demographic characteristics included gender, ethnicity, first generation status, and age (Table 7).

Of the 36 face-to-face respondents who answered the academic questions in this study, 16 (44.44%) reported graduating in 2020. Among the 37 online respondents, 16 reported graduating in 2021 (43.24%). Overall, most of the respondents in this study graduated in 2021 and 2022 (61.64%). Transfer or academic degrees made up 79.52% of the respondents in this study. Most face-to-face respondents (n = 36; 81.81%) graduated with an academic degree for transferring to a four-year institution (i.e., AS or AA). Similarly, 30 (81.08%) of the online respondents self-reported that they graduated with an academic degree. More than half of the face-to-face respondents (n = 23; 63.89%) reported being enrolled full-time. While among the online respondents, 13 (35.13%) reported full-time enrollment. Overall, full-time enrollments accounted for 49.32% of the Gail Miller School of Business respondents. There were 40 face-to-face respondents and 37 online respondents who self-reported their GPA. Fifteen face-to-face respondents (37.50%) reported a GPA range between 2.0 and 2.29. Similarly, more than one-third of the online respondents (n = 14, 37.84%) also graduated with a GPA between 2.0 and 2.29. Of all the respondents who self-reported GPA, 88.31% stated GPA levels below 3.0.

Table 7

Academic and Demographic Characteristics of Respondents

Characteristic	Face-to-face		Online	
	n	%	*n*	%
Graduation year				
2019	4	11.11	3	8.11
2020	16	44.44	5	13.51
2021	7	19.44	16	43.24
2022	9	25.00	13	35.14
Degree type				
Academic	36	81.82	30	76.92
Career	8	18.18	9	23.08
Enrollment status				
Full-time	23	63.89	13	35.14
Part-time	6	16.67	12	32.43
Full-time and part-time	7	19.44	12	32.43
GPA				
2.0–2.29	15	37.50	14	37.84
2.3–2.69	14	35.00	13	35.14
2.7–2.99	5	12.50	7	18.92
3.0–3.29	4	10.00	3	8.11
3.3–3.69	1	2.50	0	0.00
3.7–4.0	1	2.50	0	0.00
Gender				
Male	21	58.33	21	56.76
Female	13	36.11	16	43.24
Non-binary/third gender	2	5.56	0	0.00
Ethnicity				
White	20	55.56	22	59.46
Latino/Hispanic	10	27.78	9	24.32
Asian	4	11.11	2	5.41
Black or African American	1	2.78	0	0.00
American Indian or Alaska Native	1	2.78	0	0.00
Native Hawaiian or Pacific Islander	0	0.00	2	5.41
Other	0	0.00	2	5.41

(Continues on next page)

Characteristic	Face-to-face		Online	
	n	%	*n*	%
First generation status				
Yes	16	44.44	22	59.46
No	20	55.56	15	40.54
Age				
<24	19	51.35	10	27.03
25–34	15	40.54	13	35.14
35–44	2	5.41	13	35.14
>45	1	2.70	1	2.70

Of the total respondents, 57.53% self-reported as male. Among the 36 face-to-face respondents, 58.33% identified as male (n = 21), while among the 37 online respondents, 56.76% (n = 21) identified as male. White was the self-reported ethnic majority for the respondents in this study (57.53%). Of the face-to-face respondents, 55.56% (n = 20) self-reported as White, and 59.46% (n = 22) of online respondents self-reported as White. Overall, 52.05% of the Gail Miller School of Business respondents self-reported as first-generation students. Of the 36 face-to-face respondents, just over half (55.56%; n = 20) responded as not being first-generation college graduates. However, among the online respondents (n = 37), 22 (59.46%) self-reported that they were first-generation college graduates. Age was reported in four categories: 24 or younger, 25 to 34 years old, 35 to 44 years old, and 45 and older. Of all the Gail Miller School of Business respondents, 39.73% were 24 years old and younger. Among the face-to-face respondents who answered this question, 19 (51.35%) were 24 years old or younger upon graduation. Among the online respondents who answered this question, 13 (35.14%) were between 25–34 or 35–44, respectively.

Objective One Highlights

The results of the academic and demographic characteristics assessed in research objective one lead to three main conclusions:

- Most of respondents from the Gail Miller School of Business self-reported as White and Male. Additionally, one-fourth of the respondents self-reported as Hispanic/Latino.
- In alignment with existing research on online delivery methods (Bailey et al., 2005; Clotfelter et al., 2013; Wang, 2012), this study found that online respondents tended to self-report older age brackets, lower rates of full-time enrollment, and a greater proportion of first-generation students.
- Seventy-two percent of respondents graduated with GPA levels below 3.0.

Research Objective 2

Research objective 2 compared academic development and self-development by delivery method (i.e., face-to-face, or online). My null hypothesis, H_0, was that graduates who completed online degrees compare equally to face-to-face graduates in academic development and self-development. Academic development included experiential learning and employability skills; self-development skills included help-seeking and self-determination.

I used a Mann-Whitney *U* test instead of the *t* test because the data lacked normality and homogeneity of variance. The Mann-Whitney *U* test determined if there were any significant differences between the face-to-face and online programs for

academic development and self-development. I calculated the r score to determine the effect size of the statistically significant differences, $r = Z \div \sqrt{N}$. In this analysis and following Field (2013) and Rosenthal (1991), r = .2 was a small effect size, r = .3 was a medium effect size, and r = .5 was a large effect size.

The Mann-Whitney *U* test showed statistically significant differences in the scores for online and face-to-face respondents in communication and listening, perseverance, help-seeking, and self-determination (Table 8). Therefore, the null hypothesis is rejected.

Table 8

Mann-Whitney U Comparison of Academic and Self-Development CCR Factors by Delivery Method

Variable	*z*	*U*	*p*	*r*
Experiential learning	-0.24	773.50	.813	-
Employability skills				
Critical thinking	-1.08	617.00	.279	-
Communication and listening	-1.96	549.50	.050*	-.22
Perseverance	-2.07	539.00	.038*	-.24
Emotional intelligence	-1.51	561.50	.132	-
Self-development				
Help-seeking	-2.25	463.50	.025*	-.26
Self-determination	-1.96	475.00	.050*	-.23

Note. Practical significance is not reported when p is not statistically significant.
*$p < .05$

Experiential Learning

Experiential learning measured concrete experience, abstract conceptualization, reflective observation, and active experimentation and I summated the scores of these four subconstructs. A Mann-Whitney *U* test indicated that experiential learning scores of face-to-face respondents (*Mdn* = 47.50) did not differ significantly from online respondents (*Mdn* = 47.50), $U = 773.5$, $z = -0.24$, $p = .813$.

Employability Skills

Employability skills consisted of four subset items: critical thinking, communication and listening, perseverance, and emotional intelligence. Communication and listening scores for face-to-face respondents (*Mdn* = 17.50) were statistically significantly higher than for online respondents (*Mdn* = 16.00), *U* = 549.5, *z* = -1.96, *p* = .050, *r* = -0.22. Additionally, perseverance scores for face-to-face respondents (*Mean Rank* = 44.03) were statistically significantly higher than for online respondents (*Mean Rank* = 33.57), *U* = 539, *z* = -2.07, *p* = .038, *r* = -0.24. Face-to-face critical thinking (*Mdn* = 21.00) and emotional intelligence (*Mdn* = 17.00) scores were not statistically significantly different in critical thinking (*Mdn* = 20.00), *U* = 617.0, *z* = -1.09, *p* = .279, *r* = -0.12 and emotional intelligence (*Mdn* = 15.00), *U* = 561.5, *z* = -1.51, *p* = .132, *r* = -0.17 among online respondents. Based on the established effect size thresholds, the delivery method represents a small to medium effect size for these skills.

Self-Development

Self-development consists of two subset items: help-seeking and self-determination. I summated the four help-seeking items and the eight items measuring self-determination (i.e., four self-efficacy, four goal setting).

A Mann-Whitney *U* test indicated that help-seeking scores were statistically significantly different for face-to-face respondents (*Mean Rank* = 42.47) than for online respondents (*Mean Rank* = 31.38), *U* = 463.5, *z* = -2.25, *p* = .025, *r* = -0.26. Additionally, self-determination scores were statistically significantly different for face-to-face respondents (*Mdn* = 35.00) than for online respondents (*Mdn* = 31.00), *U* = 475, *z*

= -1.96, p = .050, r = -0.23. Based on the effect size threshold, delivery method has a small to medium effect on help-seeking and self-determination.

Objective Two Highlights

Two main conclusions are considered:

- The Mann-Whitney *U* tests revealed that experiential learning, self-assessed critical thinking, and emotional intelligence were not significantly different between the two delivery methods.
- This study found higher levels of self-reported communication and listening, perseverance, help-seeking, and self-determination among face-to-face respondents. This data is consistent with existing literature that found a disparity between the delivery methods (Emerson & MacKay, 2011; Figlio et al., 2013; Serdyukov, 2015; Xu & Jaggars, 2013).

Research Objective 3

Research objective 3 examined the effect of demographic and academic characteristics and delivery method on CCR factors. This analysis includes 21 two-way ANOVAs that determined the effect that gender, ethnicity, first-generation status, and delivery method have on seven CCR factors (experiential learning, critical thinking, communication and listening, perseverance, emotional intelligence, help-seeking, and self-determination). I set the a priori level to .05 to determine the statistical significance of the research findings.

The practical significance of the two-way ANOVA analyses was determined by considering the effect sizes through partial eta-squared, indicating the differences in magnitude. Practical significance goes beyond statistical significance, focusing on the real-world meaningfulness and impact of the observed differences in the studied variables (Kirk, 1995). The interpretation of partial eta-squared follows the guideline of 0.0099 as a small effect, 0.0826 being a medium effect, and 0.20 indicating a large effect (Cohen, 1988).

Visual inspection of the Normal Q-Q Plots indicated that the dependent variables had approximately normal distributions for each combination of independent variables. Variances were homogeneous, as assessed by Levene's test for equality of variances (Appendix G). No issues of concern were present with these assumptions.

Additionally, I conducted 14 multiple regression models to determine the effect of age and GPA on the CCR factors. The Durbin-Watson statistics confirmed the independence of residuals, as reported in Appendix H. I visually inspected the P-P Plot to check the data for normal distribution and examined the VIF statistics to test for multicollinearity. Lastly, I ran a Breusch-Pagan test, which confirmed the assumption of homoscedasticity.

The results indicated of the two-way ANOVAs showed no statistically significant interactions in scores from the online respondents and face-to-face respondents. However, the multiple regression analysis examining GPA and the interaction between GPA and delivery method was statistically significant; therefore, the null hypothesis is rejected.

Academic and Demographic Characteristics and Experiential Learning

Table 9 lists means and standard deviations by demographic characteristics and delivery method for experiential learning. I classified respondents into three ethnic identities: White (n = 44), Hispanic/Latino (n = 19), and other (n = 12).

Table 9

Means and Standard Deviations for Experiential Learning

Characteristic	Delivery method			
	Face-to-face		Online	
	M	*SD*	*M*	*SD*
Male	45.45	9.52	42.95	14.34
Female/other	43.55	12.58	46.83	9.03
Not first generation	46.60	8.19	47.00	10.91
Is first generation	44.53	10.05	44.38	12.91
White	45.21	8.48	42.77	13.59
Hispanic/Latino	43.80	9.65	51.88	7.95
Other	43.85	15.64	43.25	9.30

Three two-way ANOVAs analyzed the effect of delivery method demographic characteristics on experiential learning. There was no significant interaction between gender and delivery method for experiential learning, $F(1, 76) = 1.23$, $p = .272$ (Table 10). The interaction effect between first-generation status and delivery method was not statistically significant for experiential learning, $F(1, 67) = 0.01$, $p = .915$. Lastly, the interaction effect between delivery method and race for experiential learning was not statistically significant, $F(2, 74) = 1.29$, $p = .281$.

Table 10

Two-Way Analyses of Variance for Experiential Learning as a Function of Delivery Method and Demographic Characteristics

Source	*df*	*SS*	*MS*	*F*	*p*	η_p^2
		Gender				
Delivery method (DM)	1	3.09	3.09	0.02	.881	-
Gender	1	19.48	19.48	0.14	.706	-
DM x gender	1	166.66	166.66	1.23	.272	-
Error	76	10339.86	136.05			
		First generation status				
Delivery method (DM)	1	0.27	0.27	0.00	.962	-
First generation (FG)	1	95.07	95.07	0.83	.366	-
DM x FG	1	1.32	1.32	0.01	.915	-
Error	67	7683.49	114.68			
		Race and ethnic identity				
Delivery method (DM)	1	48.40	48.40	0.36	.551	-
Race	2	221.54	110.77	0.82	.444	-
DM x race	2	348.82	174.41	1.29	.281	-
Error	74	9990.69	135.01			

Note. Practical significance is not reported when *p* is not statistically significant.

Using multiple regression, I examined the relationship between age and delivery method on experiential learning. Table 11 shows that the main effect of ages between 25-34 (β = 0.04, *SE* = 3.82, *p* = .794) and older than 35 (β = 0.45, *SE* = 8.46, *p* = .129) were not statistically significantly different. Furthermore, the interaction among those age 25-34 and delivery method (β = 0.20, *SE* = 6.08, *p* = .303) and those older than 35 and delivery method (β = -0.23, *SE* = 9.66, *p* = .484) were not statistically significantly in explaining experiential learning.

Table 11

Multiple Regression of Age, Delivery Method, and Experiential Learning

Variable	*B*	*SE*	95% CI	β	*t*	*p*
(Constant)	43.50	2.26	[38.99, 48.01]		19.23	<.001
Delivery method	-3.50	4.15	[-11.77, 4.77]	-0.15	-0.84	.402
Age between 25-34 (AGE1)	1.00	3.82	[-6.62, 8.62]	0.04	0.26	.794
Age older than 35 (AGE2)	13.00	8.46	[-3.86, 29.86]	0.45	1.54	.129
DM x AGE1	6.31	6.08	[-5.81, 18.42]	0.20	1.04	.303
DM x AGE2	-6.79	9.66	[-26.02, 12.45]	-0.23	-0.70	.484

Note. $R^2 = .07$, $p = .411$. CI = confidence interval for B.

I conducted one multiple regression analysis to examine the relationship between GPA and the interaction of GPA and delivery method on experiential learning. The results of the multiple regression in Table 12 show a significant main effect of GPA 2.30–2.69 and experiential learning (β = 0.38, *SE* = 4.00, $p = .023$). However, GPA levels between 2.7–4.0 did not exhibit a significant main effect with experiential learning (β = 0.22, *SE* = 4.95, $p = .203$). There was no significant interaction between GPA levels and delivery method (β = -0.10, *SE* = 5.82, $p = .596$; β = -0.12, *SE* = 6.59, $p = .514$). To further investigate I conducted a Tukey HSD post hoc analysis providing a pairwise comparison of GPA levels and experiential learning. However, the results of the Tukey HSD analysis did not reveal any significant pairwise comparisons between GPA levels and experiential learning ($p = .128$).

Table 12

Multiple Regression of GPA, Delivery Method, and Experiential Learning

Variable	*B*	*SE*	95% CI	β	*t*	*p*
(Constant)	40.11	2.60	[34.92, 45.29]		15.41	<.001
Delivery method	2.21	3.85	[-5.46, 9.88]	0.10	0.57	.568
GPA 2.3–2.69 (GPA1)	9.25	4.00	[1.29, 17.23]	0.38	2.32	.023*
GPA 2.7–4.0 (GPA2)	5.90	4.59	[-3.25, 15.04]	0.22	1.28	.203
DM x GPA1	-3.10	5.82	[-14.70, 8.50]	-0.10	-0.53	.596
DM x GPA2	-4.32	6.59	[-17.45, 8.81]	-0.12	-0.66	.514

Note. $R^2 = .10$, $p = .183$. CI = confidence interval for B.
*$p < .05$

Academic and Demographic Characteristics and Critical Thinking

I conducted three two-way ANOVAs to examine the effect of demographic characteristics and delivery method on critical thinking. Respondents were classified into three ethnic identities: White ($n = 44$), Hispanic/Latino ($n = 19$), and other ($n = 12$). Table 13 offers mean scores and standard deviations for critical thinking.

Table 13

Mean Scores and Standard Deviations for Critical Thinking

Characteristic	Delivery method			
	Face-to-face		Online	
	M	*SD*	*M*	*SD*
Male	20.48	5.25	17.60	7.58
Female/other	20.00	4.84	20.06	3.26
Not first generation	22.15	3.56	19.27	5.27
Is first generation	18.25	6.08	18.29	6.74
White	21.15	3.99	17.68	6.86
Hispanic/Latino	17.80	7.35	20.56	4.42
Other	20.90	3.45	19.80	5.02

Table 14 shows no statistically significant interaction between gender and delivery method for critical thinking, $F(1, 72) = 1.31$, $p = .276$. Results also showed no

statistically significant interaction between delivery method and first-generation status for critical thinking, $F(1, 68) = 1.22$, $p = .273$. No statistically significant interaction effect existed between race and delivery method for critical thinking, $F(2, 70) = 2.07$, $p = .133$.

Table 14

Two-Way Analyses of Variance for Critical Thinking as a Function of Delivery Method and Demographic Characteristics

Source	*df*	*SS*	*MS*	*F*	*p*	η_p^2
Gender						
Delivery method (DM)	1	37.21	37.21	1.20	.276	-
Gender	1	18.55	18.55	0.60	.441	-
DM x gender	1	40.59	40.59	1.31	.256	-
Error	72	2224.98	30.90			
First generation status						
Delivery method (DM)	1	35.76	35.76	1.16	.285	-
First generation (FG)	1	105.05	105.05	3.41	.069	-
DM x FG	1	37.57	37.57	1.22	.273	-
Error	68	2092.77	30.78			
Race and ethnic identity						
Delivery method (DM)	1	5.42	5.42	0.18	.675	-
Race	2	11.86	5.93	0.19	.824	-
DM x race	2	126.86	63.43	2.07	.133	-
Error	70	2140.85	30.58			

Note. Practical significance is not reported when *p* is not statistically significant.

The multiple regression examining the relationship between age and delivery method on critical thinking found that both age groupings ($\beta = 0.04$, $SE = 1.87$, $p = .833$; $\beta = 0.33$, $SE = 4.16$, $p = .269$) and the interaction between both age groupings and delivery method ($\beta = 0.04$, $SE = 3.02$, $p = .844$; $\beta = -0.20$, $SE = 4.78$, $p = .551$) were insignificant. Table 15 shows the results of this regression model.

Table 15

Multiple Regression of Age, Delivery Method, and Critical Thinking

Variable	*B*	*SE*	95% CI	β	*t*	*p*
(Constant)	19.87	1.18	[17.52, 22.21]		16.91	<.001
Delivery method	-2.17	2.14	[-6.42, 2.08]	-0.20	-1.02	.313
Age between 25–34 (AGE1)	0.40	1.87	[-3.33, 4.12]	0.04	0.21	.833
Age older than 35 (AGE2)	4.63	4.16	[-3.65, 12.91]	0.33	1.11	.269
DM x AGE1	0.60	3.02	[-5.42, 6.61]	0.04	0.20	.844
DM x AGE2	-2.87	4.78	[-12.41, 6.67]	-0.20	-0.60	.551

Note. $R^2 = .04$, $p = .664$. CI = confidence interval for B.

I analyzed the relationship between GPA and the interaction of GPA and delivery method on critical thinking using a multiple regression (Table 16). There was no relationship between both GPA levels and critical thinking (β = 0.11, *SE* = 2.05, $p = .545$; β = -0.14, *SE* = 2.26, $p = .442$) and no significant interaction between both GPAs and delivery method (β = -0.22, *SE* = 3.01, $p = .295$; β = 0.02, *SE* = 3.27, $p = .908$).

Table 16

Multiple Regression of GPA, Delivery Method, and Critical Thinking

Variable	*B*	*SE*	95% CI	β	*t*	*p*
(Constant)	20.25	1.40	[17.45, 23.04]		14.44	<.001
Delivery method	-0.48	2.10	[-4.65, 3.69]	-0.04	-0.23	.819
GPA 2.3–2.69 (GPA1)	1.25	2.05	[-2.84, 5.34]	0.11	0.61	.545
GPA 2.7–4.0 (GPA2)	-1.75	2.26	[-6.26, 2.76]	-0.14	-0.77	.442
DM x GPA1	-3.17	3.01	[-9.17, 2.83]	-0.22	-1.05	.295
DM x GPA2	0.38	3.27	[-6.13, 6.9]	0.02	0.12	.908

Note. $R^2 = .05$, $p = 564$. CI = confidence interval for B.

Academic and Demographic Characteristics and Communication and Listening

Three two-way ANOVAs examined the effects of delivery method and the demographic characteristics on communication and listening. I classified respondents into three ethnic identities: White (n = 44), Hispanic/Latino (n = 19), and other (n = 12). Table 17 presents the means and standard deviations.

Table 17

Mean Scores and Standard Deviations for Communication and Listening

Characteristic	Delivery method			
	Face-to-face		Online	
	M	*SD*	*M*	*SD*
Male	16.57	3.37	13.52	5.57
Female/other	16.89	3.84	16.13	3.30
Not first generation	17.15	3.22	15.47	4.34
Is first generation	16.06	4.23	14.09	5.19
White	16.75	3.52	13.73	5.62
Hispanic/Latino	15.70	4.74	16.67	3.46
Other	17.70	2.00	15.00	2.53

The results in Table 18 indicated no significant interaction between delivery method and gender, $F(1, 73) = 1.41$, $p = .239$; a significant main effect for delivery method, $F(1, 73) = 3.96$, $p = .050$, partial $\eta^2 = 0.05$, and no significant main effect for gender, $F(1, 73) = 2.32$, $p = .132$.

Table 18

Two-Way Analyses of Variance for Communication and Listening as a Function of Delivery Method and Demographic Characteristics

Source	*df*	*SS*	*MS*	*F*	*p*	η_p^2
		Gender				
Delivery method (DM)	1	69.27	69.27	3.96	.050*	0.05
Gender	1	40.66	40.66	2.32	.132	-
DM x gender	1	24.67	24.67	1.41	.239	-
Error	73	1277.92	17.51			
		First generation status				
Delivery method (DM)	1	59.47	59.47	3.17	.079	-
First generation (FG)	1	27.01	27.01	1.44	.234	-
DM x FG	1	0.37	0.37	0.02	.889	-
Error	69	1295.04	18.77			
		Race and ethnic identity				
Delivery method (DM)	1	39.46	39.46	2.22	.141	-
Race	2	19.68	9.84	0.55	.578	-
DM x race	2	54.46	27.23	1.53	.224	-
Error	71	1264.31	17.81			

Note. Practical significance is not reported when p is not statistically significant.
*$p < .05$

I analyzed age, delivery method, and communication and listening with a multiple regression (Table 19). The regression found that both age groupings (β = 0.03, *SE* = 1.40, $p = .831$; β = 0.34, *SE* = 3.10, $p = .255$) and the interaction between age and delivery method (β = -0.13, *SE* = 2.26, $p = .517$; β = -0.16, *SE* = 3.56, $p = .610$) were insignificant with communication and listening.

Table 19

Multiple Regression of Age, Delivery Method, and Communication and Listening

Variable	*B*	*SE*	95% CI	β	*t*	*p*
(Constant)	16.44	0.88	[14.68, 18.18]		18.72	<.001
Delivery method	-2.04	1.60	[-5.21, 1.14]	-0.24	-1.28	.206
Age between 25–34 (AGE1)	0.30	1.40	[-2.48, 3.08]	0.03	0.21	.831
Age older than 35 (AGE2)	3.57	3.10	[-2.62, 9.75]	0.34	1.15	.255
DM x AGE1	-1.47	2.26	[-5.96, 3.03]	-0.13	-0.65	.517
DM x AGE2	-1.82	3.56	[-8.92, 5.27]	-0.16	-0.51	.610

Note. $R^2 = .12$, $p = .114$. CI = confidence interval for B.

Table 20 displays the results of a multiple regression that was conducted to examine the relationship between GPA and the interaction of GPA and delivery method on communication and listening. The results indicate that there was no relationship between both GPA levels (β = 0.17, *SE* = 1.57, *p* = .330; β = -0.03, *SE* = 1.73, *p* = .885) and no significant interaction between both GPAs and delivery method (β = -0.18, *SE* = 2.27, *p* = .357; β = 0.10, *SE* = 2.47, *p* = .607).

Table 20

Multiple Regression of GPA, Delivery Method, and Communication and Listening

Variable	*B*	*SE*	95% CI	β	*t*	*p*
(Constant)	16.25	1.07	[14.11, 18.38]		15.18	<.001
Delivery method	-1.68	1.57	[-4.8, 1.44]	-0.20	-1.07	.288
GPA 2.3–2.69 (GPA1)	1.54	1.57	[-1.58, 4.66]	0.17	0.98	.330
GPA 2.7–4.0 (GPA2)	-0.25	1.73	[-3.69, 3.19]	-0.03	-0.15	.885
DM x GPA1	-2.11	2.27	[-6.64, 2.42]	-0.18	-0.93	.357
DM x GPA2	1.28	2.47	[-3.65, 6.21]	0.10	0.52	.607

Note. R^2 = .09, *p = .261*. CI = confidence interval for B.

Academic and Demographic Characteristics and Perseverance

Three two-way ANOVAs determined the main and interaction effects between delivery method and demographic characteristics on perseverance. Respondents were classified into three ethnic identities: White (*n* = 44), Hispanic/Latino (*n* = 19), and other (*n* = 12). Table 21 lists means and standard deviations by academic and demographic characteristics and delivery method.

Table 21

Mean Scores and Standard Deviations for Perseverance

Characteristic	Delivery method			
	Face-to-face		Online	
	M	*SD*	*M*	*SD*
Male	16.57	3.33	13.67	5.12
Female/other	17.11	3.56	16.13	3.58
Not first generation	16.80	3.35	16.13	4.49
Is first generation	16.50	3.83	13.77	4.58
White	16.10	3.45	14.09	5.27
Hispanic/Latino	16.40	4.17	16.67	3.74
Other	18.70	1.57	14.17	2.48

Table 22 shows the interaction between gender and delivery method did not have a significant effect on perseverance, $F(1, 73) = 1.10$, $p = .297$. Therefore, I analyzed the main effect for delivery method on perseverance, which indicated that the main effect was statistically significant, $F(1, 73) = 4.49$, $p = .037$, partial $\eta^2 = 0.06$.

The interaction effect between race and delivery method on perseverance was not statistically significant, $F(1, 71) = 1.52$, $p = .226$. The main effect of delivery method was statistically significant, $F(1, 71) = 4.31$, $p = .041$, partial $\eta^2 = 0.06$.

Table 22

Two-Way Analyses of Variance for Perseverance as a Function of Delivery Method and Demographic Characteristics

Source	*df*	*SS*	*MS*	*F*	*p*	η_p^2
		Gender				
Delivery method (DM)	1	71.75	71.75	4.49	.037*	0.06
Gender	1	42.56	42.56	2.67	.107	-
DM x gender	1	17.61	17.61	1.10	.297	-
Error	73	1165.35	15.96			
		First generation status				
Delivery method (DM)	1	51.28	51.28	3.06	.084	-
First generation (FG)	1	31.51	31.51	1.88	.174	-
DM x FG	1	18.90	18.90	1.13	.292	-
Error	69	1154.80	16.74			
		Race and ethnic identity				
Delivery method (DM)	1	68.71	68.71	4.31	.041*	0.06
Race	2	36.51	18.26	1.15	.324	-
DM x race	2	48.34	24.17	1.52	.226	-
Error	71	1130.95	15.93			

Note. Practical significance is not reported when p is not statistically significant.
*$p < .05$

As shown in Table 23, a multiple regression examined the relationship of age and the interaction of age and delivery method on perseverance. The regression found that both age groupings (β = -0.06, *SE* = 1.34, $p = .689$; β = 0.31, *SE* = 2.97, $p = .295$) and the interaction between age and delivery method (β = -0.11, *SE* = 2.16, $p = .569$; β = -0.21, *SE* = 3.40, $p = .520$) were not significant with perseverance.

Table 23

Multiple Regression of Age, Delivery Method, and Perseverance

Variable	*B*	*SE*	95% CI	β	*t*	*p*
(Constant)	16.87	0.84	[15.19, 18.54]		20.11	<.001
Delivery method	-1.87	1.52	[-4.9, 1.16]	-0.23	-1.23	.224
Age between 25–34 (AGE1)	-0.54	1.34	[-3.19, 2.12]	-0.06	-0.40	.689
Age older than 35 (AGE2)	3.13	2.97	[-2.78, 9.04]	0.31	1.06	.295
DM x AGE1	-1.23	2.16	[-5.53, 3.06]	-0.11	-0.57	.569
DM x AGE2	-2.20	3.40	[-8.98, 4.58]	-0.21	-0.65	.520

Note. $R^2 = .12$, $p = .096$. CI = confidence interval for B.

A multiple regression examined the relationship between GPA and the interaction of GPA and delivery method on perseverance (Table 24). The findings indicate there was no significant relationship between both GPA categories and no significant interaction between both GPA categories and delivery method.

Table 24

Multiple Regression of GPA, Delivery Method, and Perseverance

Variable	*B*	*SE*	95% CI	β	*t*	*p*
(Constant)	16.25	1.02	[14.21, 18.28]		15.93	<.001
Delivery method	-2.32	1.49	[-5.29, 0.65]	-0.28	-1.56	.124
GPA 2.3–2.69 (GPA1)	1.68	1.49	[-1.29, 4.65]	0.19	1.12	.265
GPA 2.7–4.0 (GPA2)	-0.05	1.65	[-3.32, 3.22]	-0.01	-0.03	.976
DM x GPA1	-0.53	2.17	[-4.85, 3.79]	-0.05	-0.25	.807
DM x GPA2	1.52	2.36	[-3.17, 6.22]	0.12	0.65	.521

Note. $R^2 = .10$, $p = .198$. CI = confidence interval for B.

Academic and Demographic Characteristics and Emotional Intelligence

Table 25 presents the means and standard deviations of delivery and demographic characteristics on emotional intelligence. I classified respondents into three ethnic identities: White ($n = 44$), Hispanic/Latino ($n = 19$), and other ($n = 12$).

Table 25

Mean Scores and Standard Deviations for Emotional Intelligence

Characteristic	Delivery method			
	Face-to-face		Online	
	M	*SD*	*M*	*SD*
Male	16.50	4.22	13.33	5.03
Female/other	15.16	4.31	15.80	3.61
Not first generation	16.42	4.11	15.20	4.57
Is first generation	15.25	4.66	13.76	4.65
White	15.26	4.07	13.86	5.41
Hispanic/Latino	15.50	5.52	16.38	3.20
Other	17.30	3.16	13.50	1.64

As shown in Table 26, three two-way ANOVAs determined the main and interaction effects. After completing the analysis, I found no main effect or interaction effect. The interaction between the effects of gender and delivery method on emotional intelligence, $F(1, 71) = 3.49$, $p = .220$. Results showed no statistically significant interaction between delivery method and first-generation status on emotional intelligence, $F(1, 67) = 0.02$, $p = .902$. No statistically significant interaction effect existed between race and delivery method on emotional intelligence, $F(2, 69) = 1.13$, $p = .330$.

Table 26

Two-Way Analyses of Variance for Emotional Intelligence as a Function of Delivery Method and Demographic Characteristics

Source	*df*	*SS*	*MS*	*F*	*p*	η_p^2
Gender						
Delivery method (DM)	1	29.38	29.38	1.53	.220	-
Gender	1	5.83	5.83	0.30	.583	-
DM x gender	1	66.88	66.88	3.49	.066	-
Error	71	1362.59	19.19			
First generation status						
Delivery method (DM)	1	31.99	31.99	1.58	.213	-
First generation (FG)	1	29.67	29.67	1.47	.230	-
DM x FG	1	0.31	0.31	0.02	.902	-
Error	67	1353.84	20.21			
Race and ethnic identity						
Delivery method (DM)	1	31.71	31.71	1.61	.209	-
Race	2	25.48	12.74	0.65	.528	-
DM x race	2	44.54	22.27	1.13	.330	-
Error	69	1362.25	19.74			

Note. Practical significance is not reported when p is not statistically significant.

Both the age categories ($\beta = 0.13$, $SE = 1.46$, $p = .414$; $\beta = 0.44$, $SE = 3.21$, $p = .135$) and the interaction between age and delivery method ($\beta = -0.19$, $SE = 2.34$, $p = .339$; $\beta = -0.22$, $SE = 3.70$, $p = .496$) examined in this regression model were not significant in explaining emotional intelligence. The results are displayed in Table 27.

Table 27

Multiple Regression of Age, Delivery Method, and Emotional Intelligence

Variable	*B*	*SE*	95% CI	β	*t*	*p*
(Constant)	15.14	0.93	[13.28, 16.98]		16.31	<.001
Delivery method	-1.24	1.66	[-4.54, 2.07]	-0.14	-0.75	.459
Age between 25–34 (AGE1)	1.20	1.46	[-1.71, 4.1]	0.13	0.82	.414
Age older than 35 (AGE2)	4.86	3.21	[-1.54, 11.27]	0.44	1.51	.135
DM x AGE1	-2.25	2.34	[-6.91, 2.41]	-0.19	-0.96	.339
DM x AGE2	-2.53	3.70	[-9.91, 4.84]	-0.22	-0.69	.496

Note. $R^2 = .11$, $p = .130$. CI = confidence interval for B.

Table 28 displays the results from a multiple regression that examined the relationship between GPA and the interaction of GPA and delivery method on emotional intelligence. The findings indicate that there was no significant relationship between both GPA categories (β = 0.24, *SE* = 1.65, $p = .176$; β = 0.12, *SE* = 1.87, $p = .507$) and no significant interaction between both GPA categories and delivery method (β = -0.21, *SE* = 2.41, $p = .322$; β = -0.07, *SE* = 2.66, $p = .748$).

Table 28

Multiple Regression of GPA, Delivery Method, and Emotional Intelligence

Variable	*B*	*SE*	95% CI	β	*t*	*p*
(Constant)	14.75	1.12	[12.5, 16.99]		13.13	<.001
Delivery method	-0.44	1.68	[-3.79, 2.9]	-0.05	-0.26	.793
GPA 2.3–2.69 (GPA1)	2.25	1.65	[-1.03, 5.53]	0.24	1.37	.176
GPA 2.7–4.0 (GPA2)	1.25	1.87	[-2.48, 4.98]	0.12	0.67	.507
DM x GPA1	-2.40	2.41	[-7.21, 2.4]	-0.21	-1.00	.322
DM x GPA2	-0.86	2.66	[-6.16, 4.45]	-0.07	-0.32	.748

Note. $R^2 = .06$, $p = .551$. CI = confidence interval for B.

Academic and Demographic Characteristics and Help-Seeking

I examined help-seeking in relation to demographic factors by using three two-way ANOVA models. I classified respondents into three ethnic identities: White (n = 44), Hispanic/Latino (n = 19), and other (n = 12). The results, displayed in Table 29, provide mean scores and standard deviations for help-seeking as a function of delivery method and demographic factors.

Table 29

Mean Scores and Standard Deviations for Help-Seeking

Characteristic	Delivery method			
	Face-to-face		Online	
	M	*SD*	*M*	*SD*
Male	14.55	3.83	12.52	4.40
Female/other	13.94	2.51	11.80	4.33
Not first generation	14.70	3.50	10.79	3.73
Is first generation	13.93	3.15	13.14	4.51
White	14.15	3.25	11.38	4.31
Hispanic/Latino	13.60	3.41	15.44	3.54
Other	15.57	3.21	10.33	3.27

Table 30 displays the main and interactional effect of delivery method and gender on help-seeking. I ran a two-way ANOVA to examine the effect of these factors. The results indicate a significant main effect of the delivery method on help-seeking, $F(1, 69) = 5.22$, $p = .025$, partial $\eta^2 = 0.07$. There was no statistically significant interaction between the effects of gender and delivery method on help-seeking, $F(1, 69) = 0.00$, $p = .950$.

A two-way ANOVA measured the effect of first-generation status and delivery method on help-seeking. The main effect of delivery method was statistically significant

on help-seeking mean scores, $F(1,67) = 6.51$, $p = .013$, partial $\eta^2 = 0.09$. However, the interaction between first-generation status and delivery method on help-seeking was not statistically significant, $F(1, 67) = 2.85$, $p = .096$.

Lastly, I examined the effect of delivery method and race on help-seeking. Results indicated a statistically significant main effect of delivery method on help-seeking, $F(1, 67) = 4.62$, $p = .035$, partial $\eta^2 = 0.06$. Additionally, race and delivery method had a statistically significant interaction effect on help-seeking, $F(2, 67) = 4.13$, $p = .020$. However, the post-hoc analysis using Tukey HSD did not identify any significant pairwise comparisons between the White ($p = .576$), Hispanic/Latino ($p = .205$), and all other races ($p = .930$).

Table 30

Two-Way Analyses of Variance for Help-Seeking as a Function of Delivery Method and Demographic Characteristics

Source	*df*	*SS*	*MS*	*F*	*p*	η_p^2
Gender						
Delivery method (DM)	1	77.84	77.84	5.22	.025*	0.07
Gender	1	7.96	7.96	0.53	.468	-
DM x gender	1	0.06	0.06	0.00	.950	-
Error	69	1029.53	14.92			
First generation status						
Delivery method (DM)	1	95.04	95.04	6.51	.013*	0.09
First generation (FG)	1	10.74	10.74	0.74	.394	-
DM x FG	1	41.61	41.61	2.85	.096	-
Error	67	978.08	14.60			
Race and ethnic identity						
Delivery method (DM)	1	61.43	61.43	4.62	.035*	0.06
Race	2	41.43	20.72	1.56	.218	-
DM x race	2	109.94	54.97	4.13	.020*	0.11
Error	67	891.17	13.30			

Note. Practical significance is not reported when *p* is not statistically significant.
*$p < .05$

Age (β = 0.12, *SE* = 1.31, *p* = .472; β = 0.46, *SE* = 2.85, *p* = .132) and the interaction between age and delivery method (β = 0.00, *SE* = 2.11, *p* = .994; β = -0.31, *SE* = 3.27, *p* = .356) were not significant with help-seeking. Table 31 presents the findings from the multiple regression analysis.

Table 31

Multiple Regression of Age, Delivery Method, and Help-Seeking

Variable	*B*	*SE*	95% CI	B	*t*	*p*
(Constant)	13.65	0.86	[11.93, 15.36]		15.88	<.001
Delivery method	-2.25	1.49	[-5.22, 0.72]	-0.29	-1.51	.135
Age between 25–34 (AGE1)	0.95	1.31	[-1.67, 3.57]	0.12	0.72	.472
Age older than 35 (AGE2)	4.35	2.85	[-1.34, 10.04]	0.46	1.53	.132
DM x AGE1	-0.02	2.11	[-4.21, 4.18]	0.00	-0.01	.994
DM x AGE2	-3.04	3.27	[-9.55, 3.48]	-0.31	-0.93	.356

Note. R^2 = .11, *p* = *.152*. CI = confidence interval for B.

A multiple regression examined the relationship between GPA and the interaction of GPA and delivery method on help-seeking. The results in Table 32 indicate there was a significant relationship between GPA 2.3–2.69 (β = 0.38, *SE* = 1.45, *p* = .035). There was also a significant interaction relationship between delivery method and GPAs between 2.3–2.69 (β = -0.45, *SE* = 2.05, *p* = .029) However, GPA levels between 2.7–4.0 did not exhibit a significant relationship with help-seeking (β = 0.22, *SE* = 1.56, *p* = .214) nor did the interaction between delivery method and GPA's between 2.7–4.0 (β = -0.30, *SE* = 2.24, *p* = .118).

Table 32

Multiple Regression of GPA, Delivery Method, and Help-Seeking

Variable	*B*	*SE*	95% CI	β	*t*	*p*
(Constant)	12.64	1.01	[10.63, 14.65]		12.56	<.001
Delivery method	0.50	1.42	[-2.34, 3.34]	0.06	0.35	.727
GPA 2.3–2.69 (GPA1)	3.13	1.45	[0.23, 6.02]	0.38	2.16	.035*
GPA 2.7–4.0 (GPA2)	1.96	1.56	[-1.15, 5.07]	0.22	1.26	.214
DM x GPA1	-4.58	2.05	[-8.67, -0.48]	-0.45	-2.23	.029*
DM x GPA2	-3.54	2.24	[-8.01, 0.92]	-0.30	-1.58	.118

Note. $R^2 = .15$, $p = .054$. CI = confidence interval for B.
*$p < .05$

Academic and Demographic Characteristics and Self-Determination

To assess how demographic factors influence self-determination, I conducted three two-way ANOVA models. I classified respondents into three ethnic identities: White ($n = 44$), Hispanic/Latino ($n = 19$), and other ($n = 12$). Table 33 highlights the mean and standard deviation results from the two-way ANOVA models.

Table 33

Mean Scores and Standard Deviations for Self-Determination

Characteristic	Delivery method			
	Face-to-face		Online	
	M	*SD*	*M*	*SD*
Male	34.11	6.58	28.10	9.91
Female/other	34.06	4.91	32.13	7.71
Not first generation	35.11	6.24	31.67	8.97
Is first generation	32.71	5.51	28.59	9.25
White	33.42	6.38	28.86	10.36
Hispanic/Latino	32.67	5.52	32.11	7.88
Other	37.71	2.75	30.00	6.13

A two-way ANOVA examined the effect of gender and delivery method on self-determination. Table 34 shows that the main effect of delivery method was statistically

significant on self-determination scores, $F(1, 68) = 4.77$, $p = .032$. However, the analysis found no statistically significant interaction between the effects of gender and delivery method on self-determination, $F(1, 68) = 4.77$, $p = .277$.

A two-way ANOVA measured the effect of first-generation status and delivery method on self-determination. The main effect of delivery method was statistically significant on help-seeking mean scores, $F(1, 66) = 3.98$, $p = .050$. However, the interaction between delivery method and first-generation status did not reach statistical significance with self-determination, $F(1, 66) = 0.03$, $p = .857$.

In examining the effect of race and delivery method on self-determination, there was a statistically significant main effect of delivery method on self-determination, $F(1, 66) = 4.63$, $p = .041$. However, there were no statistically significant interactions between race and delivery method on self-determination, $F(2, 66) = 0.84$, $p = .436$.

Table 34

Two-Way Analyses of Variance for Self-Determination as a Function of Delivery Method and Demographic Characteristics

Source	*df*	*SS*	*MS*	*F*	*p*	η_p^2
		Gender				
Delivery method (DM)	1	280.41	280.41	4.77	.032*	0.07
Gender	1	70.57	70.57	1.20	.277	-
DM x gender	1	73.63	73.63	1.25	.267	-
Error	68	3998.29	58.80			
		First generation status				
Delivery method (DM)	1	242.12	242.12	3.98	.050*	0.06
First generation (FG)	1	126.54	126.54	2.08	.154	-
DM x FG	1	1.99	1.99	0.03	.857	-
Error	66	4015.30	60.84			
		Race and ethnic identity				
Delivery method (DM)	1	261.24	261.24	4.36	.041*	0.06
Race	2	77.07	38.54	0.64	.529	-
DM x race	2	100.86	50.43	0.84	.436	-
Error	66	3959.54	59.99			

Note. Practical significance is not reported when p is not statistically significant.
*$p < .05$

Table 35 shows the results of a multiple regression of age and the interaction between age and delivery method on self-determination. The regression found that both age groupings (β = 0.06, *SE* = 2.69, *p* = .720; β = 0.35, *SE* = 5.69, *p* = .244) and the interaction between age and delivery method (β = -0.10, *SE* = 4.20, *p* = .613; β = -0.13, *SE* = 6.51, *p* = .691) were not significant on self-determination.

Table 35

Multiple Regression of Age, Delivery Method, and Self-Determination

Variable	*B*	*SE*	95% CI	β	*t*	*p*
(Constant)	33.32	1.76	[29.81, 36.81]		18.99	<.001
Delivery method	-4.62	2.99	[-10.58, 1.35]	-0.29	-1.55	.127
Age between 25–34 (AGE1)	0.97	2.69	[-4.4, 6.34]	0.06	0.36	.720
Age older than 35 (AGE2)	6.68	5.69	[-4.66, 18.03]	0.35	1.18	.244
DM x AGE1	-2.13	4.20	[-10.5, 6.24]	-0.10	-0.51	.613
DM x AGE2	-2.60	6.51	[-15.59, 10.39]	-0.13	-0.40	.691

Note. R^2 = .14, *p = .078*. CI = confidence interval for B.

To examine the relationship between GPA and the interaction of GPA and delivery method on self-determination I performed a multiple regression. The results in Table 36 indicate there was no significant relationship between both GPA categories (β = 0.22, *SE* = 3.01, *p* = .239; β = 0.04, *SE* = 3.47, *p* = .817) and no significant interaction between both GPA categories and delivery method (β = -0.22, *SE* = 4.26, *p* = .291; β = -0.10, *SE* = 4.75, *p* = .633).

Table 36

Multiple Regression of GPA, Delivery Method, and Self-Determination

Variable	*B*	*SE*	95% CI	B	*t*	*p*
(Constant)	32.57	2.09	[28.39, 36.74]		15.58	<.001
Delivery method	-2.00	2.96	[-7.9, 3.9]	-0.13	-0.68	.501
GPA 2.3–2.69 (GPA1)	3.58	3.01	[-2.43, 9.59]	0.22	1.19	.239
GPA 2.7–4.0 (GPA2)	0.80	3.47	[-6.12, 7.72]	0.04	0.23	.817
DM x GPA1	-4.54	4.26	[-13.04, 3.97]	-0.22	-1.07	.291
DM x GPA2	-2.28	4.75	[-11.75, 7.2]	-0.10	-0.48	.633

Note. $R^2 = .10$, $p = .234$. CI = confidence interval for B.

Objective Three Highlights

The results of research objective three lead to several main conclusions:

- Gender, ethnicity, and first-generation status had no statistical significance in the variance of mean scores in experiential learning.
- There was no statistically significant interaction suggesting that the combined effect of gender, ethnicity, first-generation status, and delivery method did not influence self-reported communication and listening scores, and self-reported perseverance scores.
- Self-reported help-seeking behavior increases among respondents with higher graduating GPAs and those who self-reported they were face-to-face students. This finding coincides with existing literature that states online students may have less access to teachers and peers (Richards, 2022).
- It appears that the Gail Miller School of Business similarly supports diverse and non-diverse students in their learning.

Research Objective 4

Research objective 4 described if and how graduates from the Gail Miller School of Business have utilized their degrees since graduating. This objective further examines how their degree has helped them and where they are in the process of accomplishing their transfer or career goals.

Overall Degree Utilization

Graduates reported how often they used the skills they obtained through their studies at SLCC, how often they used the network they established while attending SLCC, and how often they reflect on the experiences they had at SLCC to resolve current issues. Table 37 provides the frequencies and percentages of three degree utilization items: skill use, network use, and experience use.

Of the 39 face-to-face respondents who answered the skill use question, 46.15% (n = 18) indicated that they always use the skills that they obtained in completing their degree or certificate. Of the 37 online respondents who answered the skill use question, 35.14% (n = 13) indicated that they always use the skills they obtained from their degree or certificate.

Among the 39 face-to-face respondents who answered the network use question, 38.46% (n = 15) never used the network they established while getting their degree/certificate at SLCC. Similarly, among the 37 online respondents , 37.84% (n = 14) indicated that they never use the network they established at SLCC.

Table 37

Degree Utilization by Delivery Method

Variable	Face-to-face		Online	
	n	%	*n*	%
Skill use				
Never	0	0.00	2	5.41
Sometimes	5	12.82	6	16.22
About half the time	7	17.95	6	16.22
Most of the time	9	23.08	10	27.03
Always	18	46.15	13	35.14
Network use				
Never	15	38.46	14	37.84
Sometimes	12	30.77	8	21.62
About half the time	4	10.26	4	10.81
Most of the time	2	5.13	5	13.51
Always	6	15.38	6	16.22
Experience use				
Never	3	7.69	4	10.81
Sometimes	8	20.51	9	24.32
About half the time	5	12.82	6	16.22
Most of the time	15	38.46	9	24.32
Always	8	20.51	9	24.32

When it came to reflecting on the experiences face-to-face respondents had to help with current issues they face at work, 38.46% (n = 15) stated that they use their SLCC experience most of the time when looking to solve current issues. Online respondents were more varied in their experience use, reporting 24.32% (n = 9) always used their experiences, 16.22% (n = 6) reporting that they use their experiences most of the time, and 24.32% (n = 9) used their experiences at SLCC only sometimes.

If respondents answered "never" to all the degree utilization questions, they explained why they have not utilized their degree. One respondent (1.31%) answered "never" to all three skills. The respondent stated that they needed additional skills for career progress as the reason for why they have not utilized their degree.

Career Path Degree Utilization

Table 38 presents the frequencies and percentages to the answers provided by respondents who received a career path degree. When it came to actively looking for a job in their major, 28.57% (*n* = 2) of face-to-face respondents strongly agreed and 28.57% (*n* = 2) neither agreed nor disagreed. For online respondents, 37.50% (*n* = 3) neither agreed nor disagreed about actively looking for a job in their major. When asked if they have had interviews since graduation, 57.14% of the face-to-face respondents (*n* = 4) strongly agreed and 37.50% online respondents (*n* = 3) strongly agreed. For face-to-face respondents, 42.86% (*n* = 3) strongly agreed to having received a job offer since graduation. Job offers for online respondents were more spread out with 25.00% (*n* = 2) strongly agreeing with receiving a job offer, 25.00% (*n* = 2) somewhat agreeing to receiving a job offer, and 25.00% (*n* = 2) neither agreeing nor disagreeing to receiving a job offer post-graduation. Three face-to-face respondents (42.86%) strongly agreed that their degree has helped them in their job search. However, three online respondents (37.50%) indicated that they neither agreed nor disagreed in whether their degree has helped them in their job search.

Table 38

Frequencies and Percentages of Career Path Graduates

Variable	Face-to-face		Online	
	n	%	*n*	%
Actively look for job within major				
Strongly disagree	1	14.29	2	25.00
Somewhat disagree	1	14.29	1	12.50
Neither agree nor disagree	2	28.57	3	37.50
Somewhat agree	1	14.29	0	0.00
Strongly agree	2	28.57	2	25.00
I have had interviews since graduating				
Strongly disagree	0	0.00	1	12.50
Somewhat disagree	0	0.00	1	12.50
Neither agree nor disagree	2	28.57	2	25.00
Somewhat agree	1	14.29	1	12.50
Strongly agree	4	57.14	3	37.50
I have received job offers since graduating				
Strongly disagree	1	14.29	1	12.50
Somewhat disagree	0	0.00	1	12.50
Neither agree nor disagree	2	28.57	2	25.00
Somewhat agree	1	14.29	2	25.00
Strongly agree	3	42.86	2	25.00
What I learned at SLCC has helped in my job search process				
Strongly disagree	1	14.29	1	12.50
Somewhat disagree	0	0.00	2	25.00
Neither agree nor disagree	1	14.29	3	37.50
Somewhat agree	2	28.57	1	12.50
Strongly agree	3	42.86	1	12.50

Degree Helpfulness

Table 39 provides a summary of the frequencies and percentages for how respondents feel their degree has helped them after graduating from the Gail Miller School of Business. Results indicated 72.70% (n = 32) of face-to-face respondents reported that their degree has helped in preparing for continuing education, and 61.40% (n = 27) used the skills they gained from their degree. Similarly, 64.10% of online respondents (n = 25) found their degrees helpful, using the skills they gained from their degree. Further, of the online respondents, 69.20% (n = 27) felt that their degree prepared

them to continue their education and 66.70% (n = 26) felt their degree helped them succeed in continuing their education.

Table 39

Frequencies and Percentages for How Graduates Felt Their SLCC Degree Has Helped Them

Response	Face-to-face		Online	
	n	%	*n*	%
Has prepared me to continue my education.	32	72.70	27	69.20
I use the skills I gained in my current job.	27	61.40	25	64.10
SLCC helped me gain knowledge and skills that are directly applicable to my current job.	25	56.80	25	64.10
My degree/certificate has been a valuable addition to my professional life.	24	54.50	21	53.80
Helped me succeed in continuing my education.	24	54.50	26	66.70
Qualify for a promotion.	15	34.10	14	35.90
Has not helped me in my professional life.	7	15.90	10	25.60

Transfer Path Degree Utilization

For the 59 respondents who received a transfer degree, 83.33% (n = 25) of face-to-face respondents and 65.52% (n = 19) of online respondents indicated that they have already started their classes at their transfer institution (Table 40).

Table 40

Frequencies and Percentage of Respondents on the Transfer Path to Another Institution

Response	Face-to-face		Online	
	n	%	*n*	%
I have already begun classes at my new institution.	25	83.33	19	65.52
I have been accepted and will be starting classes soon.	0	0.00	2	6.90
I have not begun classes but have applied.	0	0.00	2	6.90
I have not begun but have spoken with an academic counselor.	0	0.00	3	10.34
I have not begun and have changed my plans.	0	0.00	1	3.45
I have not begun for other reasons.	5	16.67	2	6.90

Objective Four Highlights

There are several conclusions based on the results of research objective four:

- Most Gail Miller School of Business respondents saw their degree as a steppingstone for further education, not terminal.
- The study found that face-to-face respondents were more proactive in seeking post-graduation employment and had an increase in job searches and interviews, compared to those who completed a career-focused degree online. This aligns with findings from Ojha and Rahman (2020), who pointed out that online graduates often are older and frequently already employed at the time of graduation, negating the need for active job searching and interviews.
- Online and face-to-face career path graduates were comparable in how they could use their degree for career advancement.
- Among the Gail Miller School of Business respondents, many online and face-to-face respondents did not use their network established in school.

Research Objective 5

Research objective 5 explained how delivery method, CCR, and degree type predict degree utilization among Gail Miller School of Business graduates. I evaluated the CCR variables using a multiple regression whereas degree type and delivery method used two linear regression models. Additionally, institutional career services were run through a correlational analysis to examine the relationship with degree utilization.

CCR and Degree Utilization

I performed a multiple regression to predict degree utilization from CCR variables. There was independence of residuals, as assessed by a Durbin-Watson statistic of 2.13. A visual inspection of a scatter plot of the residuals against the predicted values indicated that there was homoscedasticity and linearity. Examining the tolerance level of each of the predictor variables indicated there was no evidence of multicollinearity, as each tolerance level was above the 0,1 threshold. I tested for normal distribution by visually inspecting the P-P Plot, based on the visual inspection the data is normally distributed. Levene's test indicated that the assumption of homoscedasticity was met for the variables of degree utilization and experiential learning, ($F(17, 41) = 0.64$, $p = .839$), degree utilization and perseverance ($F(10, 61) = 0.77$, $p = .658$), degree utilization and emotional intelligence ($F(10, 58) = 0.71$, $p = .714$), degree utilization and help-seeking ($F(13,57) = 0.96$, $p = .499$), and degree utilization and self-determination ($F(15, 49) = 0.88$, $p = .593$). However, it is important to note that degree utilization and critical thinking ($F(10, 59) = 2.19$, $p = .031$) and degree utilization and communication and listening ($F(9, 61) = 2.14$, $p = .040$) did not pass Levene's test, indicating unequal variances. Therefore, I performed a data transformation by taking the log of critical thinking and communication and listening to achieve homoscedasticity.

The multiple regression model (Table 41) indicated that experiential learning ($\beta = 0.11$, $SE = 0.04$, $p = .009$) and self-determination ($\beta = 0.19$, $SE = 0.08$, $p = .023$) statistically significantly predicted whether a graduate would use their degree post-graduation. The regression model explained a significant proportion of variance in degree utilization, $R^2 = .54$, $F(7, 58) = 21.91$, $p < .001$.

Table 41

Regression Analysis Summary for College and Career Readiness Variables Predicting Degree Utilization

Variable	*B*	*SE*	95% CI	B	*t*	*p*
Experiential learning	0.11	0.04	[0.03, 0.19]	0.34	2.68	.010**
Critical thinking	0.02	3.01	[-4.27, 7.80]	0.11	0.23	.560
Communication and listening	-0.04	3.83	[-9.16, 6.17]	-0.09	-0.26	.697
Perseverance	-0.09	0.19	[-0.45, 0.27]	-0.13	-0.51	.606
Emotional intelligence	0.02	0.14	[-0.25, 0.30]	0.04	0.17	.844
Help-seeking	0.10	0.10	[-0.10, 0.30]	0.12	0.98	.341
Self-determination	0.19	0.08	[0.03, 0.35]	0.46	2.34	.023*

Note. $R^2 = .54$, $p < .001$. CI = confidence interval for B. All variables were measured on the same scale of one to five with a five indicating "strongly agree."
*$p < .05$, **$p < .01$

Degree Type and Degree Utilization

Simple linear regressions predicted the effect degree type and delivery method have on degree utilization. The relationship between the variables is linear, and a visual observation of the scatter plot indicated no outliers. A Durbin-Watson statistic was used to test for independence of observations. For delivery method, the Durbin-Watson statistic was 2.28 and was 2.26 for degree type indicating that the observations are independent of each other. The residuals' homoscedasticity and normality were tested with Levene's test. Levene's test indicated that the assumption of homoscedasticity was met for the variables of degree type ($F(17, 41) = 2.08$, $p = .154$) and delivery method ($F(17, 41) = 0.30$, $p = .586$; Appendix I) and a visual examination of the P-P Plots. The results (Table 42) display that degree type did not significantly explain a significant proportion of variance in degree utilization, $R^2 = .005$, $F(1, 74) = 0.36$, $p = .549$.

Table 42

Linear Regression Analysis Summary for Degree Type Predicting Degree Utilization

Variable	*B*	*SE*	95% CI	β	*t*	*p*
Constant	9.49	0.43	[8.65, 10.34]	-	22.35	<.001
Degree type[a]	0.58	0.96	[-1.33, 2.48]	0.07	0.60	.549

Note. CI = confidence interval for B.
[a]Academic = 0, Career = 1

Delivery Method and Degree Utilization

Table 43 indicated that the delivery method was not a significant predictor of degree utilization (β = -0.28, *SE* = 0.76, p = .710). This regression model was not significant in explaining variances in degree utilization, R^2 = .002, $F(1, 74) = 0.14$, p = .710.

Table 43

Linear Regression Analysis Summary for Degree Type Predicting Degree Utilization

Variable	*B*	*SE*	95% CI	β	*t*	*p*
Constant	9.74	0.53	[8.68, 10.80]	-	18.32	<.001
Delivery method[a]	-0.28	0.76	[-1.80, 1.24]	-0.04	-0.37	.710

Note. CI = confidence interval for B.
[a]Face-to-Face = 0, Online = 1

Correlation of Career Services and Degree Utilization

I ran a Kendall's tau correlation to determine the relationships between various institutional career services and degree utilization. The results revealed several significant findings and can be seen in Table 44.

Kendall's Tau revealed significant correlations between respondents' engagement in SLCC's career services and their degree utilization. The Work for Credit program

exhibited a positive correlation with degree utilization (Kendall's $\tau = .37$, $p = .02$, $n = 21$). Additionally, participation in Focus 2 Career (Kendall's $\tau = .45$, $p = .008$, $n = 20$) exhibited a positive correlation to degree utilization. The Myers Briggs personality assessment (Kendall's $\tau = .55$, $p < .001$, $n = 33$) and virtual job shadowing (Kendall's $\tau = .58$, $p = .009$, $n = 12$) were also positively correlated to degree utilization. Job search training (Kendall's $\tau = .43$, $p = .02$, $n = 15$), career workshops (Kendall's $\tau = .44$, $p < .01$, $n = 18$), service learning (Kendall's $\tau = .32$, $p = .02$, $n = 28$), and The Campus Internship Program (Kendall's $\tau = .49$, $p = .02$, $n = 13$) exhibited a positive correlation with degree utilization. additionally, study abroad (Kendall's $\tau = .74$, $p = .007$, $n = 8$), and participation in the SLCC Job Fair (Kendall's $\tau = .50$, $p = .002$, $n = 24$) were positively correlated with degree utilization.

Table 44

Kendall's Tau Correlation of Institutional Career Services and Degree Utilization

Variable	*n*	*M*	*SD*	1	2	3	4	5	6	7	8	9	10	11
1. Degree utilization	76	9.61	3.30	0.00										
2. Work for credit	21	2.23	1.02	.370*	-									
3. Focus 2 career	20	2.36	1.14	.447*	.559**	-								
4. Myers briggs	33	2.43	1.04	.547**	.841**	.724**	-							
5. Virtual job shadow	12	2.25	1.06	.578*	.740**	.612*	.791**	-						
6. Job search training	15	2.07	1.16	.428*	.715*	.600*	.645**	.675*	-					
7. Career workshops	18	2.11	1.23	.441*	.500	.500	.752**	.897**	.824**	-				
8. Service learning	28	2.32	1.06	.321*	.394	.673**	.718**	.721**	.691**	.675**	-			
9. Campus internship program	13	2.15	0.99	.489*	.864**	.745*	.677*	.828**	.717*	.629*	.759**	-		
10. Study abroad	7	2.29	1.11	.738*	.857*	.669	.857*	1.00**	.884*	.944**	.857*	.884*	-	
11. SLCC job fair	24	2.04	1.02	.502**	.727**	.640*	.645**	.889**	.687**	.737**	.667**	.857*	.857*	-

Note. Institutional career service variables were measured on an ordinal scale. Degree utilization was scored on a scale of three to 15 with 15 indicating respondents "always" use their degree. Institutional career services were scored on a scale of one to four with a four indicating "very helpful."
*$p < .05$, **$p < .01$

Objective Five Highlights

Based on the finding of research objective five, I have made three main conclusions:

- For respondents from the Gail Miller School of Business, higher self-reported classroom experiential learning levels predicted higher degree utilization.
- The results indicate that when the Gail Miller School of Business respondents self-reported higher levels of self-determination, it predicted higher degree utilization.
- Fifty-four percent of the variance in degree utilization can be predicted by college and career readiness variables.
- Consistent with existing literature (Helbig & Matkin, 2021), the respondents of this study showed that participation in institutional college and career services positively correlates with degree utilization.

Summary

The purpose of this research was to examine the academic and demographic characteristics of the Gail Miller School of Business, compare online and face-to-face delivery methods based on CCR development, and examine how CCR, delivery method, and degree type explain degree utilization. Research objective 1 used descriptive statistics to define and categorize the students who attend the SLCC business school. The results found that the majority of students are White and plan to transfer to a 4-year institution

post-graduation. The results further indicated that approximately one-fourth of the students are Hispanic/Latino with the majority of online students skewing older in age and are first-generation students.

Research objective 2 used a Mann-Whitney *U* test to compare online and face-to-face respondents across all the CCR factors. It was found that experiential learning, critical thinking, and emotional intelligence did not differ based on delivery method. However, face-to-face respondents scored higher in communication and listening, perseverance, help-seeking, and self-determination.

Research objective 3 utilized several two-way ANOVAs and multiple regressions to examine the interaction between academic and demographic factors and delivery method on the CCR factors. The results indicated that GPA and the interaction between GPA and delivery method were significant in explaining variations in a respondent's propensity to seek help. However, the results did not find significance for any other academic or demographic factor.

Research objective 4 used descriptive statistics to describe and explain why respondents chose SLCC, their initial intent in pursuing a degree at SLCC, and how they have utilized their degree since graduating. This analysis found that most respondents planned to transfer to another institution post-graduating, consistent with the goals of SLCC students at large. When comparing online to face-to-face graduates, online respondents indicated they had started classes at the transfer institution, were in the process of transferring, or had changed their plans. On the other hand, 83.33% of online respondents stated they had already started school at their transfer institution. Of the respondents who indicated that they were using their degree for their career, face-to-face

respondents strongly agreed that their degree has helped in receiving a job offer, obtaining a job interview, and has helped in the job search process; however, due to the low response rate, further investigation into this matter is warranted. Overall, when reflecting on the usefulness of their degree both online and face-to-face respondents felt that getting a degree at SLCC within the Gail Miller School of Business was valuable to them for their career and continued education.

Lastly, research objective 5 used a multiple regression and two linear regressions to analyze the effect of CCR factors, delivery method, and degree type on predicting degree utilization. I also examined institutional career services to see which services correlated with the likelihood of degree utilization. The multiple regression found that experiential learning and self-determination were significant factors in predicting degree utilization. Furthermore. When students have confidence in their abilities and set meaningful goals, this leads to a more likely outcome of degree utilization. No other CCR factors had significance in predicting degree utilization. The two linear regression models showed no significance in delivery method and degree type in predicting degree utilization. Kendall's Tau correlation found that all the college and career services positively correlated with degree utilization. However, because of the low participation rate in these programs more research is needed.

CHAPTER V

DISCUSSION

I conducted a program evaluation of the SLCC Gail Miller School of Business degree programs and a comparative analysis of CCR skills among online and face-to-face graduates. The respondents in this study graduated between the years 2019–2022, and the COVID-19 pandemic forced many of the students to take classes online. However, the students at SLCC were only forced online in March 2020 and had the choice to resume face-to-face classes in August 2020.

Additionally, this study explored how CCR skills, delivery method, degree type, and use of institutional career services affect degree utilization. SLCC has recently adopted the Pathway program that focuses on student-centered teaching approaches in hopes of helping students develop 21st century employability skills that will not only prepare graduates for the unique challenges of the workforce but allow them to compete for higher paying jobs.

Based on the structure of college and career readiness and the strategic direction of SLCC outlined in Chapter I, along with the literature review in Chapter II, the findings of this study provide benchmarks for the Gail Miller School of Business and provide an intensive evaluation of the business programs at SLCC. This study focused on self-reported perceptions of various CCR factors, and I used the theory of experiential learning to address the gaps in CCR literature. SLCC has little, if any, information on the current effectiveness of its business degree programs, making it difficult to measure the

effectiveness of the Pathways program; therefore, this study examines the levels of academic development and self-development of graduates from the Gail Miller School of Business to benchmark how the current program is developing CCR skills among its student body. Furthermore, this study attempts to fill in the gaps in existing CCR literature by taking a more holistic approach to CCR assessment, looking at multiple factors that existing literature has yet to measure simultaneously. Lastly, I examined the factors of CCR, the curricular delivery method chosen by the graduates, the type of degree obtained, and the career services provided by SLCC to explain degree utilization.

This chapter discusses the findings and provides recommendations on the use of this data in practice. Following this, I provide direction for future research based on the results from the following research objectives:

1. Describe the academic and demographic characteristics of Gail Miller School of Business graduates.
2. Compare academic development and self-development between online and face-to-face graduates from the Gail Miller School of Business.

   H_0: Graduates who completed online degrees compare equally to face-to-face graduates in academic development and self-development.
3. Determine the influence of delivery method and academic and demographic characteristics on CCR among Gail Miller School of Business graduates.

   $H_{o:}$ Academic and demographic factors do not influence CCR among Gail Miller School of Business graduates.
4. Describe why graduates attended SLCC, how they are using their degree/certificate, and why some graduates did not use their degree/certificate.

5. Explain how delivery method, CCR, and degree type influence degree utilization among Gail Miller School of Business graduates.

Discussion

Research Objective 1

Table 45 compares the academic and demographic factors of the respondents to the survey to the overall general academic and demographic factors of SLCC students from 2019–2022.

Table 45

Academic and Demographic Comparisons of Survey to 2019–2022 SLCC General

Characteristic	Survey demographics	SLCC demographics
	%	%
Gender		
Male	57.53	33.60
Ethnicity		
White	57.53	65.17
Latino/Hispanic	26.03	19.74
First generation status		
No	47.90	44.00
Yes	52.10	56.00
Enrollment status		
Full-time	49.31	57.26
Age		
<24	39.19	45.91
25–34	37.84	19.20
Degree type		
Academic	79.52	54.09

The population for the quantitative program evaluation consisted of all graduates from the Gail Miller School of Business between the years 2019–2022. Based on the general demographic breakdown at SLCC (SLCC, 2021c), the respondents are most like

SLCC students from the 2019–2022 academic year in the areas of gender, ethnicity, first-generation status, age 24 years and younger, and enrollment status; therefore, the findings can reasonably inform decision making and provide valuable information for program reform and strategic direction.

The respondents are separated by delivery method (i.e., online, and face-to-face), with most of both groups represented by White males. Though Whites represent the ethnic majority, there was still a significant percentage of Hispanic/Latinos among online (24.32%) and face-to-face (27.78%) delivery methods. The racial breakdown in this study is consistent with the overall ethnic diversity among 2019–2022 SLCC students (19.74%) and is an important factor as SLCC is currently striving to become a Hispanic-Serving Institution (HSI). HSI institutions have a Hispanic/Latino student population of 25% or more.

Furthermore, most face-to-face respondents came from the 2019–2020 graduation classes, whereas most online respondents were part of the 2021–2022 graduation class. Bryson and Andres (2020) found that many institutions saw a shift from face-to-face to more online enrollment; however, SLCC does not track students by delivery method, so it is not possible to determine consistency with the findings of Bryson and Andres.

In looking at the survey respondents, the levels of first-generation students and their enrollment status are similar to that of the 2019–2022 general SLCC student population. Additionally, full-time enrollments between 2019–2022 SLCC students and the respondents fall between 49.31% and 57.26%, about 7% more for the SLCC 2019–2022 student population. In demarcating online and face-to-face delivery methods, 55.56% of face-to-face respondents were not first-generation students, and 63.89% of

face-to-face respondents attended school full-time. This finding contrasts with online graduates, where 59.46% are first-generation students with almost an even split of full-time (35.14%), part-time (32.43%), and a combination of both (32.43%) for their enrollment at SLCC. These findings suggest that students in face-to-face classes are less likely to work full-time than those who complete their degree online (Ojha & Rahman, 2020; Xu & Jaggars, 2013). Additionally, with most face-to-face graduates not being first-generation college graduates, they may be more likely to follow a traditional face-to-face and full-time educational path.

Of the 2019–2022 SLCC students 45.91% were 24 years old or younger; this finding was consistent with the survey respondents, where 39.19% were 24 years old or younger. However, in analyzing the demographics of this study I found that 51.35% of face-to-face respondents were 24 years old or younger. In contrast, online graduates skewed older than face-to-face, with most online respondents between the ages of 25–44 (70.27%). This difference in age among delivery methods is consistent with the findings of Ojha and Rahman (2020) and Xu and Jaggars (2013), who found that online students tend to be older than face-to-face peers. Differences in age could also explain why online graduates were more likely not to attend full-time, as older students are more likely to work or tend to family responsibilities while attending school (Ojha & Rahman, 2020; Xu & Jaggars, 2013).

Academic degrees are those completed to transfer to another institution for further education. Online and face-to-face graduates had a high percentage of graduates (79.52%), who completed academic degrees. This breakdown was higher than 2019–2022 SLCC students (54.09%) and iterates the high number of students who plan to

transfer to another institution. Furthermore, most respondents in this study graduated with a GPA range between 2.0–2.29, with very few graduating with a GPA of 3.0 or higher. SLCC did not provide information on graduate GPA levels for comparison. These low GPA levels are concerning as existing literature found that a low GPA was negatively associated with degree utilization, and every one-unit increase in GPA resulted in a one-half standard deviation increase in obtaining a bachelor's degree (Crisp et al., 2009; Zhang et al., 2019).

Research Objective 2

Results revealed statistically significant differences in self-assessed levels of communication and listening, perseverance, help-seeking, and self-determination between graduates who completed their degree online versus face-to-face. It is important to note that due to the loose definition of online and face-to-face delivery methods by SLCC, no respondents are entirely classified as exclusively online or face-to-face. The observed statistical disparities led to the rejection of the null hypothesis, indicating that online and face-to-face graduates are not equal in CCR skills upon graduation.

Though there were statistical differences in communication and listening, and perseverance, each of these elements showed only a small to medium effect size. Morgan and Adams (2009), Xu and Jaggars (2013), and Raymundo (2020) explained that some of the deficiencies found in online courses stem from a lack of activities that foster some elements of CCR. However, it is important to note that though face-to-face instruction may provide more opportunities for engagement, these opportunities are also available to online courses or programs. Song et al. (2019) and Xu and Jaggars (2013) concluded that

adjusting the development and implementation of online classes affects the attainment of knowledge in key employability skills.

Research objective 2 also looked at the effect of the delivery method on graduates' self-development (i.e., help-seeking and self-determination). In comparing help-seeking and self-determination among online and face-to-face respondents, this study found that face-to-face respondents self-assessed statistically higher levels of both help-seeking and self-determination with a small to medium effect.

There is limited literature looking at help-seeking and self-determination; however, the literature that does exist highlights the importance of student interactions as well as a structured support system in promoting self-development (Im & Kang, 2019). For students to develop confidence in their abilities, they need to have a strong connection through well-developed communication channels with their fellow students and the teacher (Im & Kang, 2019). A strong connection between student and teacher goes back to the developmental ideas of Lev Vygotsky and the zone of proximal development. An expert or teacher, in this case, assists learners in developing their skills beyond what they can do alone (Moll, 1992). This process develops self-determination by helping students set goals to stretch their capabilities and gain confidence by accomplishing their goals with the help of their teacher (Moll, 1992). Goal setting and accomplishment are also fundamental in the development of help-seeking. Students are inclined to seek help as they strive for goals beyond their current capabilities.

These concepts align with the foundations of experiential learning, which provides students with experiences in low-stakes environments that will help build self-determination and help-seeking capabilities (Weimer, 2013; Zull, 2002). Furthermore,

with asynchronous classes, there can be less student participation, which Im and Kang (2019) concluded diminishes levels of student self-efficacy and goal accomplishment (i.e., self-determination).

The Mann-Whitney *U* tests further revealed that experiential learning, self-assessed critical thinking, and emotional intelligence were not significantly different between the two delivery methods. The results of this study provide empirical support for how the business school has incorporated experiential learning theory into its business courses by showing no statistical difference between online and face-to-face respondents. It suggests that these graduates incorporated Kolb's learning stages in their business courses, linking an experiential activity with past experiences and course content and reflecting upon these experiences. This study's lack of difference in critical thinking and emotional intelligence is consistent with Soffer and Nachmias (2018), who found that online classes are equally effective as face-to-face courses.

The comparison of online to face-to-face employability skill development is a complex area of study, with some studies showing the benefit of online and others a disparity between delivery methods, resulting in inconclusive results on outcomes of online delivery method in comparison to face-to-face delivery method (Emerson & MacKay, 2011; Figlio et al., 2013; Serdyukov, 2015; Xu & Jaggars, 2013). The findings in this study are more in line with the conclusions of Bahhouth and Bahhouth (2011), who found no differences among online students in critical thinking but found major drawbacks in communication and listening and perseverance. Furthermore, Xu and Jaggars (2013) found that peer performance within an online course significantly affected the perseverance and performance of each student. For example, a student was likely to

perform poorly if their peers were disengaged and performed poorly. Performance, based on peer engagement, implies that increasing classroom comradery may increase individual perseverance. Based on the high attrition rate among online courses within the Gail Miller School of Business (K. Grooms, personal communication, January 6, 2022), an older student population, and online classes filled with more part-time and first-generation students, it is understandable that these specific CCR factors would be deficient among Gail Miller School of Business graduates. Another reason that could explain the high levels of attrition among online students is improper course development (Serdyukov, 2015).

It is essential to recognize the finding from Serdyukov (2015) that indicated that many of the performance deficiencies between online and face-to-face delivery do not come from the delivery method itself but from improper course development and a failure of the instructor or institution to properly adjust the pedagogy of the online course to meet the specific needs and demands of an asynchronous classroom environment. Based on the existing literature that found performance gaps between the delivery methods, it is likely that a lack of a specific online pedagogy is the cause for variability among delivery methods (Jaggars, 2014; Serdyukov, 2015; Xu & Jaggars, 2013). These findings are consistent with online course development at SLCC, where many online classes are built by taking the face-to-face curriculum and simply transferring that course online without making significant pedagogical changes. Transferring face-to-face course content to online courses without adjustment only happens with some courses at SLCC. However, based on the results and the existing literature, this is one possible explanation of the differences in outcome.

Research Objective 3

Research objective 3 used several two-way ANOVAs, multiple regressions, and a Mann-Whitney *U* test to assess the effect of academic or demographic factors and delivery method on CCR. The first step in this objective involved running two-way ANOVAs for the variable of experiential learning. I found that gender, ethnicity, and first-generation status had no statistical significance in the variance of mean scores in experiential learning. These findings imply that the interactions between gender, ethnicity, first-generation status, and delivery method are insignificant in whether students agreed that their class were experientially focused.

The next step in research objective 3 was to assess the effect of gender, ethnicity, first-generation status, and delivery method on employability skills. By implementing the two-way ANOVAs, I could analyze the main and interaction effects of gender, ethnicity, first-generation status, and delivery method. The results suggest a significant main effect of delivery method; however, there was no statistically significant interaction suggesting that the combined effect of gender, ethnicity, first-generation status, and delivery method did not influence communication and listening scores, and perseverance scores. Because of the limitations of the definitions of online and face-to-face student classifications, it is impossible to determine the exact cause of the disparity in CCR. However, the findings of this study warrant further investigation to better understand potential distinctions in CCR development in online and face-to-face contexts.

Next, self-development factors were run through two-way ANOVAs to determine the main and interaction effects of gender, ethnicity, first-generation status, and delivery method. The results of research objective 3 found that the interaction between academic

and demographic factors and delivery method is nonsignificant in the variations in mean scores among most of the CCR factors (i.e., experiential learning, critical thinking, communication and listening, perseverance, emotional intelligence, self-determination). However, this research objective suggests that GPA significantly explains experiential learning and help-seeking. Furthermore, the interaction between a GPA of 2.30–2.69 and the delivery method was significant in explaining help-seeking. The nonsignificant results of gender, ethnicity, first-generation status, and age is contrary to existing literature (Burwell-Woo et al., 2015; Jaggars & Bailey, 2010; Spanjaard et al., 2018; Subedi & Powell, 2016; Wu, 2017; Xu & Jaggars, 2013, 2014; Zhou, 2022) in that demographic factors were responsible for some variances in CCR. Besides experiential learning and help-seeking, GPA was insignificant for the CCR factors. Based on existing literature, it is surprising that GPA was not a significant factor in the variations of more CCR factors.

First, when exploring the potential reason for the discrepancy between the findings of this research and existing literature, multiple factors need consideration. Primarily, the difference in results could be due to low response rate. Prior studies did look specifically at community colleges; however, they consisted of more respondents that hosted a more diverse range of age, ethnicity, and GPA. Cultural and economic contextual factors may have also influenced the relationship between the academic and demographic factors and CCR. I conducted this study at a community college in the Rocky Mountain region with distinct cultural and economic characteristics. Culturally, this region is unique in that much of the population identifying as members of the Church of Jesus Christ of Latter-day Saints. This prominent religion affects various aspects of life

including social norms and community structure placing an emphasis on family values, the value of education, a strong sense of community, and personal responsibility (Nelson, 2011).

Economically, this region has a history of low unemployment in comparison to the national average (U.S. Bureau of Labor Statistics, 2023). This region has a reputation for fostering entrepreneurship because of the government, and various organizations, support of a business-friendly environment (Utah Governor's Office of Economic Opportunity, n.d.). This area also bolsters a thriving tech industry and has a relatively young population contributing to a dynamic workforce. These contextual differences may have led to the disparity in findings compared to existing literature. Another explanation could be the effectiveness of the Gail Miller School of Business in delivering an equitable educational experience among students with varying demographic and academic backgrounds.

The findings that GPA and the interaction between GPA and delivery method make sense as existing literature has well documented the relationship between GPA and successful outcomes, such as employment, higher salary, and acceptance to institutions to continue education (Mehmetaj & Alili, 2021; Welch et al., 2018). In looking at help-seeking, it is reasonable that those who seek the help of peers, teachers, and others would be more likely to see successful course outcomes in the form of higher grades. The interaction between online respondents and GPA is also understandable based on the existing literature. Online students are less likely to seek help in an online classroom when there is a lack of clear communication channels and when student-to-student and student-to-teacher interactions are limited (Salmon, 2013; Xu & Jaggars, 2013).

The research on experiential learning has suggested that classes with higher experiential learning have better student performance outcomes (Burwell-Woo et al., 2015; Spanjaard et al., 2018; Zhou, 2022). The research connects higher levels of experiential learning and higher GPA scores.

Research Objective 4

This research objective described why students attend SLCC, how they are currently using their degree, and, if they are not currently using their degree, what the reason is. Based on the results of this study, many respondents attended SLCC in hopes of transferring to another institution. The number of transfer degree graduates indicates that most respondents do not view their degree at SLCC as terminal but as a steppingstone for more education. This finding is consistent with existing literature about community college graduates transferring to other institutions to continue their education (Shapiro et al., 2017).

Most face-to-face (72.70%) and online (69.20%) respondents that received a transfer degree from SLCC (i.e., AS and AA) felt their education at SLCC adequately prepared them to continue their education. Additionally, most graduates feel that their degree helped them succeed in accomplishing their education goals at SLCC.

Of the respondents who stated that they attended SLCC for career development, about two-thirds of the face-to-face and online respondents feel that they use the skills they gained from their degree at SLCC in their current job. Additionally, more than half of face-to-face and two-thirds of online respondents felt that the knowledge and skills they gained from obtaining their degree directly apply to their current job. With a low

response rate and no industry data to support the findings, one explanation is that the respondents felt they had the knowledge and skills needed for their careers. Furthermore, slightly more than one-third of face-to-face and online respondents indicated that their degree from SLCC helped them qualify for a promotion. Additionally, more than half of face-to-face and online respondents felt that their degree has positively contributed to their professional lives. Lastly, 15.90% of face-to-face and 25.60% of online respondents feel their degrees could have been more helpful in their professional lives. Overall, the majority agreed that getting a degree at SLCC was a valuable endeavor that benefited them regardless of their goal in attending SLCC.

Next, in this study, I examined how graduates utilize the skills, networks, and experiences they have gained since graduating. Of those who completed the survey, approximately two-thirds of face-to-face and online respondents stated that they always use the skills they gained from obtaining their degree or that they used them most of the time. However, just over one-third of face-to-face and online respondents indicated they never used the networking skills they developed from attending SLCC. Lastly, when asked how often they reflect on their experience while attending SLCC, 58.97% of face-to-face respondents stated that they reflect on their experience to help solve current issues most of the time. Whereas the results for online respondents were that 48.65% felt they used their experiences always or most of the time.

The results of this breakdown in degree utilization indicate that the skills gained from getting a degree at SLCC are used by respondents most of the time or always, illustrating that the skills gained are consistent with the skills needed. However, network use was surprising and should be of concern to SLCC. The lack of network use is

concerning because Eunyoung (2009) concluded that faculty, advisors, and staff were not adequate sources of support and help in succeeding academically and navigating the complexities of the academic system. Additionally, individuals who establish peer groups with similar ethnicities and backgrounds provide the best support system for success. In short, developing a network of peers while at school and using that network increases an individual's chances for success.

The results measuring how often graduates reflected on their experiences might indicate the quality of experiential learning within the classroom or the time lapse since graduation. However, further research is needed to examine why face-to-face graduates (58.97%) stated that they always or most of the time reflected on their experiences more than online graduates (48.65%) and what benefit that may have within a career or in continuing their education.

Most online respondents who pursued a degree for career development did not strongly agree or disagree about actively looking for a job post-graduation. COVID-19 could be one explanation other than delivery method that explains why some graduates may not be actively looking for a job post-graduation. Among the face-to-face respondents, just under one-third strongly agreed with the statement, they were actively looking for a job, with another one-third being neutral about actively seeking a job since graduating. Over half of the face-to-face respondents strongly agreed that they had interviews since graduating, whereas roughly two-fifths of online respondents strongly agreed.

Regarding job offers, 42.86% of face-to-face respondents strongly agreed they received them. In contrast, one-fourth of online respondents strongly agreed, somewhat

agreed, and were neutral about receiving job offers since graduating. Lastly, 42.86% of face-to-face respondents strongly agreed that their degree has helped their job search, whereas one-fourth of online respondents somewhat disagreed.

These findings are consistent with the demographic findings that showed most face-to-face respondents were full-time students, thus less likely to have a full-time job within their chosen major while attending school. These findings could explain why more face-to-face respondents strongly agreed with how their degree has impacted their career development. Moreover, the results of this study found that online respondents attended school part-time or a mix of full-time and part-time throughout their degree attainment and skewed towards an older age range, implying that they may have already been working and saw less of an impact on their career development (Ojha & Rahman, 2020).

The next step in research objective 4 was determining where the respondents were in completing their goal of transferring to another institution and if SLCC aided in that process. Most face-to-face respondents had already begun classes at their transferring institution. Online respondents had a slightly lower number of those that had already begun classes, with the remaining respondents spread nearly equally among those that will be starting soon, had applied but have not begun, have not begun but have spoken with an academic counselor, have changed plans, and have not begun for other reasons. A possible reason why online respondents had yet to start classes could be because there are more first-generation students among the online respondents. Deng and Yang (2021) found that it is vital for first-generation students to have educational programs and policies to support their well-being as they are vulnerable and less familiar with the education process. A lack of support for first-generation community college graduates

could be one reason fewer online graduates have already begun classes at another institution. However, environmental factors such as the job market upon graduation and continuing education costs could be another reason for delayed transfer rates. Additionally, online respondents indicated they already had jobs; this could be another possible reason for delays in transferring.

Research Objective 5

This research objective examined how the multiple CCR factors, delivery method, degree type, and institutional career services explain degree utilization. A multiple regression examined the relationship between the CCR factors and degree utilization. I used two linear regressions to explain the effect that delivery method and degree type had on degree utilization. The results found that experiential learning and self-determination were statistically significant factors in predicting degree utilization among respondents. The higher the experiential learning and self-determination score a respondent had, the higher their score of degree utilization. The connection between experiential learning and self-determination on degree utilization follows findings from Weimer (2013), Zull (2002), and Hanstedt (2018), where reflection on experiences was an essential factor in degree utilization.

The study found self-determination as a significant predictor of degree utilization, where respondents with higher levels of self-determination had a higher probability of degree utilization. This study found that online respondents exhibited lower levels of self-determination. These findings follow the conclusions made by Im and Kang (2019) that a graduate is less likely to utilize their degree to accomplish their goals if they are not

confident in their ability to pursue them and achieve the desired outcomes. In looking at the face-to-face respondents, they tended to be further along toward degree utilization, with the majority stating they had accomplished their goal of transferring to another institution and were twice as likely as online respondents to have secured a job post-graduation. There could be multiple explanations for this such as a lack of networking opportunities (Eunyoung, 2009) and limited access to college and career resources (Helbig & Matkin, 2021).

The final element of research objective 5 involved examining institutional career services. The purpose was to see which career services correlated with degree utilization. The correlation analysis found that Work for Credit, Focus 2 Career, Myers Briggs Personality Assessment, virtual job shadow, job search training, career workshops, service learning, CIP, study abroad, and the SLCC job fair positively correlated with degree utilization. These results are consistent with the findings of Strusowski (2013), who found a positive correlation between institutional career services and degree utilization, where those who participated in college and career services offered by their institution were more likely to complete and utilize their degree post-graduation.

Limitations

All research has limitations; no questionnaire is perfect, and the data is not flawless. Two limitations of survey research are low response rates and time constraints of data collection (Dillman et al., 2014). By administering the web-based questionnaire through email, a low response rate is a potential concern. I addressed this limitation by

presenting a clear rationale for the study and two reminder emails to encourage participation.

Not all the respondents answered every question on the questionnaire, which resulted in incomplete and missing data for some of the questionnaire items. The descriptive statistics for each item represent the graduates who responded to that item on the questionnaire.

Existing literature suggested that academic and demographic factors can influence degree utilization; however, I needed more respondents to run regression models to explain the factors that influence degree utilization because of the low response rate and the number of factors. The low response rate affects the generalizability of the study. According to Faul et al. (2009), this study required 159 respondents to be fully generalizable with an effect size of .50. However, generalizability can be made with 83 respondents if the effect size is at .10. Additionally, because the demographic representation of the respondents is consistent with the available demographics for SLCC, the findings serve as a baseline establishing a benchmark in degree utilization and can alert the Gail Miller School of Business of specific trends warranting further investigation.

Furthermore, the survey only includes some employability skills that many companies and institutions find essential. Instead, I had to select key employability skills that are important to SLCC and are common to all business classes within the Gail Miller School of Business.

Additionally, there are limitations to the definitions of online and face-to-face students. First, they are not absolute. The ambiguity of the delivery method definitions

means that students could take most of their classes online while being considered face-to-face graduates because they did not meet the 80% threshold. Second, the definitions classify the graduates as online or face-to-face, when they would be considered hybrid. These issues make it impossible to definitively determine the cause of differences between the groups.

Recommendations for Practice

Based on the results and conclusions of this study, along with the existing literature on experiential learning, CCR, and degree utilization, I offer a series of recommendations for faculty and the administration.

Recommendations for Faculty

The results of this study suggest that the faculty within the Gail Miller School of Business are doing well at implementing experiential learning in both online and face-to-face delivery methods, as well as developing critical thinking and emotional intelligence among its graduates. Many of the classes within the Gail Miller School of Business, among both delivery methods, focus on problem-based assignments (Savery, 2015), group discussions, reflective activities (Goleman, 1996), and Socratic questioning (Paul & Elder, 2007). These findings are evident in the responses to the survey questions on experiential learning, where respondents stated that they had experiences involving problem-based learning, group projects, discussions, and reflective essays. Existing research indicates that these methods foster skills like critical thinking and emotional

intelligence. Therefore, the Gail Miller School of Business faculty should continue these specific practices.

The results further suggest differences between online and face-to-face delivery methods in communication and listening, perseverance, help-seeking, and self-determination. Existing literature found that deficiencies in online courses come from a lack of student-to-student and student-to-teacher interactions and a feeling of disconnection due to the asynchronous nature of online classes (Jaggars, 2014; Serdyukov, 2015; Xu & Jaggars, 2013). Pedagogical adjustments that address the challenges of asynchronous instruction can increase communication and listening, perseverance, help-seeking tendencies, and self-determination.

For faculty to address deficiencies in communication and listening among online students, it is recommended that faculty members include collaborative online group assignments, online scaffolded discussions and interactions, and online recorded presentations (Chen & Chen, 2015; Vlachopoulos & Makri, 2019). Students develop interpersonal communication skills among various personality types by actively engaging with peers and the instructor. I recommend changing groups frequently to increase effectiveness by providing more varied and frequent experiences.

To better develop perseverance among online students, faculty should focus on syllabus development and clarity so that online students have clear expectations about the workload of the course and the deadlines (Boettcher & Conrad, 2016). Additionally, ensure the instruction provides regular and clear communication. Second, foster a growth mindset among students by allowing them to adjust to unsatisfactory assignments and providing examples of successful assignments (Dweck, 2006). Third, breaking tasks or

assignments into smaller, more manageable steps will help students not feel overwhelmed, strengthening students' ability to persevere (Kossen & Ooi, 2021). And fourth, build comradery among students and teachers. Perseverance develops by building relationships and connections (Xu & Jaggars, 2013).

To strengthen online students' help-seeking skills, I recommended that faculty focus on providing clear communication channels for students to reach the instructor or a forum where students can easily reach out to other students in a simple low-stakes environment (Salmon, 2013; Xu & Jaggars, 2013). Next, faculty needs to offer timely and detailed feedback so that help-seeking skills are encouraged with interactions that are beneficial and truly helpful (Chou & Bates, 2019). Lastly, faculty should encourage help-seeking skills by establishing peer-review projects and creating activities or assignments focusing on using outside resources to answer questions and solve complex problems (Nicol & Macfarlane-Dick, 2006).

To increase self-determination in online classes, faculty should focus on student autonomy, allowing students to choose assignments and assessments given a specific list of parameters (Hanstedt, 2018; Moll, 1992; Weimer, 2013). Faculty should also focus classroom activities on setting and accomplishing meaningful goals specific to their individual needs and creating detailed action plans to accomplish their goals (Zimmerman, 2002). Furthermore, faculty needs to develop and nurture intrinsic motivation by helping students find ways to connect the material to real-world scenarios or transfer knowledge to other course subjects (Deci & Ryan, 2000).

Lastly, the results found that experiential learning and self-determination predicted degree utilization. Because of this, I recommend that faculty emphasize the use

and development of high-impact practices in both online and face-to-face courses, such as emphasizing common intellectual experiences, collaborative assignments, problem-based learning, and undergraduate research (Kolb, 1984; Handstedt, 2018; Weimer, 2013; Zull, 2002). These practices are rooted in experiential learning as they deepen concrete classroom experiences while developing confidence and reinforcing goal-seeking behaviors essential for CCR.

Recommendations for Administration

CCR development is the aim of most business schools. Helping students gain the skills they need to succeed in the workforce or continuing their education creates satisfaction among graduates, increasing reputation and alumni donations and giving (Arizzi et al., 2020; Skari, 2011). SLCC has focused on developing CCR skills through adopting the Pathway initiative and tasked each school within the college to create Area Study Design Teams to formulate school-specific ways to develop CCR among its students better.

Because this study found differences in CCR levels between the delivery methods along with providing valuable benchmarking data and information, a recommendation is that administration from The Gail Miller School of Business conducts department specific program evaluations before implementing the final phase of the Pathway program. Each department can examine and adjust the framework to include a more specific list of academic and self-development metrics that fit the department's specific needs. The program evaluation can provide crucial benchmarking data and information about the student population that can inform and more effectively guide the

implementation of the Pathway program to give it a greater chance of success (Mertens & Wilson, 2018).

The findings found that the demographic makeup of the respondents was similar whether they self-reported as online or face-to-face students. Despite the similarities in demographics, the results indicated that face-to-face respondents self-assessed higher levels of CCR. These findings suggest that factors beyond demographics may contribute to the disparity in CCR skills between the delivery methods within the Gail Miller School of Business. Therefore, I recommend that administration collaborate with industry partners to cross-reference learning outcomes and the CCR skills needed to successfully transition to the workforce or continue their education (Starkey & Madan, 2001). The Gail Miller School of Business Area Study Design Team worked with industry partners to discuss essential CCR skills; however, the collaboration did not extend beyond a single email communication, limiting the benefit of a more intensive collaboration. By engaging in a more intensive collaboration that goes beyond the limitations of a singular email communication, the institution can tap into industry expertise to bridge the CCR gap effectively.

Additionally, high-level collaboration can help departments remain competitive and adjust quickly to the industry's ever-changing needs. One of the most significant issues schools face is irrelevancy due to a mismatch between what is offered by the institution and what is needed by employers. Collaborating more effectively with industry partners and other stakeholders keeps the school competitive and the graduates satisfied (Starkey & Madan, 2001).

One of the most interesting findings from this study was the respondents' low GPAs upon graduation, which is a concerning trend for degree utilization (Mehmetaj & Alili 2021; Welch et al., 2018). When looking at GPA level through the theoretical framework of experiential learning, there should be a direct relationship between the strength of the concrete experience and the strength of the learning and connection to the material. This study found no statistically significant differences in experiential learning among online and face-to-face respondents. However, because of the low GPA levels between both delivery methods I recommend that administration perform a more thorough assessment of experiential learning that does not rely on the self-assessment of students who may be fundamentally unfamiliar with the tenants of experiential learning. Additionally, I recommend that the administration prioritizes GPA levels by increasing focus on early intervention measures, such as outreach to at-risk students (Crisp et al., 2009; Dery, 2009), attendance monitoring (Nordmann et al., 2019), and increased teacher-student engagement (Sun et al., 2022). Another resource available to students in the Gail Miller School of Business administration is the Business Resources Instructional Center (BRIC). The BRIC provides student aid and tutoring to assist struggling students. Increased participation in this resource could increase overall student GPA levels. I recommend increasing awareness of the BRIC through marketing, teacher referrals, and in-class workshops. Lastly, the administration is also advised to implement a school-specific first-year experience program that includes peer mentoring and study skill training (Graham et al., 2022; Jamelske, 2009).

This study found that all the institutional college career services offered by SLCC positively correlate with degree utilization. Institutional career services aid in the

experiential learning process by providing students with opportunities to have concrete experience (e.g., Virtual Job Shadow and Career Workshops), abstract conceptualization (e.g., Focus 2 Career and Job Fair), reflective observation (e.g., Personality, Interest and Career Assessment), and active experimentation (e.g., Campus Internship Program, Work for Credit, and Study Abroad). However, only 34.96% of graduates utilized these services, with online students reporting between 10% and 20% less participation in five of the ten services offered. Therefore, I recommend that the Gail Miller School of Business administration increase participation in institutional college and career services by first raising awareness of the programs through active promotion of them through various channels, such as the Canvas message board, in-class announcements, and the new student orientation process (Folsom & Reardon, 2001).

Next, regularly assess the programs through student assessment surveys to adjust and tailor the services to the student's needs (Sanders & Lackritz, 2018). Lastly, the Gail Miller School of Business should examine the availability of institutional college and career services to the students. Strusowski (2013) found that the availability of college and career services was a significant factor in why students did not participate in them. SLCC can optimize accessibility by allowing all services to be accessed remotely and providing clear instructions on using the services, along with easy-to-use scheduling options for additional support (Allen et al., 2008).

This study revealed that approximately one-fourth of SLCC’s student population is Hispanic/Latino. As SLCC aims to become an HSI, there are unique opportunities and challenges for CCR development associated with such a shift. According to Crisp et al. (2009) the characteristics associated with HSIs include higher levels of part-time

students, students needing financial aid, and first-generation students. These challenges can directly affect CCR development and, consequently, degree utilization.

Because of the intricacies of the shifts associated with becoming an HSI, a strategic recommendation for SLCC administration is to examine other HSI business programs to optimize CCR development among the Hispanic/Latino student population. By examining other HSIs, SLCC gains concrete experience allowing them to reflect on the applicability of the insights. Through this reflective phase, SLCC can formulate and test out strategies to better serve the Hispanic/Latino population. Applying experiential learning theory in this context enhances SLCC's ability to tailor CCR strategies effectively to Hispanic/Latino students and increase degree utilization.

Lastly, because this study found that face-to-face respondents self-assessed higher levels of CCR and because of the frequently changing needs of the workforce, it is recommended that the administration replicate this study yearly to continually monitor the development of CCR. Regular replication will ensure consistency in outcomes for both online and face-to-face courses. Study replication is also essential because of faculty, administration, and adjunct turnover. Future research should also take a more longitudinal approach, tracking students' academic and self-development progress throughout their educational experience. Assessing students when they begin their coursework and then again upon graduation would provide data that better demonstrates how the Gail Miller School of Business influences the development of CCR skills.

In summary, each of the administrative recommendations contributes to the central goal of the Pathway program of developing CCR. Recommendations for customized program evaluations and department-specific metrics align academic

experiences with experiential learning principles. Collaboration with industry partners bridges the gap between academic learning and industry needs, addressing the dynamic nature of the workforce.

Experiential learning assessment and early intervention measures connect academic experience with CCR, ensuring tangible support for students. Promoting institutional college and career services enhances experiential learning outcomes while providing students with opportunities for crucial CCR development.

Addressing the unique demographic challenges that SLCC faces underscores inclusivity in CCR strategies. In implementing these strategies, the Gail Miller School of Business can cultivate graduates who excel academically and are better prepared for college and workforce matriculation challenges.

Recommendations for Research

There is a need for further research on specific items included in the survey instrument. The four stages of Kolb's (1984) experiential learning theory described students' perceptions of how well experiential learning activities in their business courses included each of the four stages of the experiential learning cycle. Additional research on the four elements of experiential learning stages is needed to provide conceptual clarity and interpret the construct's meaning. Additionally, researchers should consider refinement of the help-seeking and degree utilization constructs because of their lower Cronbach's alpha scores. Future research could address the low reliability of help-seeking and degree utilization by addressing ambiguous or unclear wording. Additionally, the

degree utilization construct could benefit from further assessment examining how it is measured and how it could be refined to better assess degree utilization.

The analysis of the demographic data revealed that the individuals who participated in the study had low GPAs after completing their education. In order to gain a more comprehensive understanding of how experiential learning affects the overall academic performance, it is suggested that future researchers should track the GPA of students over an extended period, starting from their first semester and continuing until they graduate. This will provide a better insight into the long-term impact of experiential learning on academic outcomes and help to identify areas where improvements can be made to enhance the educational experience.

Many high schools, colleges, and universities rely on NACE for their materials, programs, and assessments. This study used NACE measures and constructs to assess CCR skills; however, limited research and literature validate NACE survey items. Measuring the validity and reliability of survey instruments is essential for good data and practical application. I recommend that future research explore NACE CCR measures to provide more resources for researchers, administrators, and those looking to develop CCR skills better.

One of the limitations of this study comes from the measurement of CCR skills at only one point in time. This limitation affects the ability of this study to determine the impact that delivery method has on CCR development. Because of this, I recommend that students take a CCR assessment at the beginning of their tenure at SLCC and upon graduation. This type of assessment would provide a more accurate measure of the development of CCR skills throughout their education. Additionally, by implementing a

pre-test and post-test and using completed rubrics from classroom assignments, errors that arise from self-assessing skill development could be eliminated, allowing for richer data analysis (Johnson & Christensen, 2019).

The research design for this study was quantitative. However, incorporating a mixed-methods approach may reveal more profound insight into the similarities and differences between online and face-to-face courses at SLCC. Investigation into the personal experiences of the graduates would help understand the use of CCR skills and why certain areas of CCR are underdeveloped in online courses. It would also provide more information about using college and career services offered at SLCC. I also recommend that CCR assessments move away from self-assessment surveys, which can skew data, and use rubric-based measurements that are based on specific learning objective to determine CCR levels.

Due to a low response rate in the survey, certain statistical analysis could not be carried out. As a result, examining how academic and demographic elements impact degree utilization across different delivery methods was not possible. However, by evaluating the academic and demographic profiles of students, the Gail Miller School of Business can gain valuable insights that are crucial for the school's strategic development. This comprehensive evaluation will also enable the school to enhance its inclusivity efforts, ensuring that its programs are accessible and effective in fostering CCR among a diverse student population. By monitoring academic and demographic characteristics, we can not only gain a better understanding of degree utilization but also positively influence it by improving the development of CCR skills. Therefore, I recommend analyzing degree utilization while focusing on academic and demographic factors. This will help

the Gail Miller School of Business better serve the needs of its student population, starting from the first semester and continuing until graduation.

Summary

This research has explored the development of CCR among online and face-to-face graduates from the Gail Miller School of Business at SLCC. Furthermore, this study examined CCR's effect on graduates utilizing their degrees post-graduation. The study found that those who took most of their classes online scored lower in communication and listening, perseverance, help-seeking, and self-determination than face-to-face respondents; however, because of the limitations of this study, these differences could be caused by various external or environmental factors, warranting the need for further investigation. This study found that GPA and the interaction between delivery method and GPA impact help-seeking among graduates but did not find any other academic or demographic factors that could explain the differences between online and face-to-face students. Lastly, this study found that a student's ability to seek help and their level of self-determination were significant factors in whether they would go on to utilize their degree. SLCC has services that can aid students and increase the likelihood of degree utilization; however, participation in these programs is low.

These topics are complex issues requiring meticulous assessment as the impact affects many stakeholders. The proliferation of business education hinges on the ability of the institution to develop students' CCR skills. By advancing our understanding of how CCR is developed in the classroom and adjusting pedagogical practices based on

that information, future students will be more prepared for the workforce and better equipped to meet the challenges of continuing education. Providing future students with the tools they need to succeed will aid them in accomplishing their goals, increase graduate satisfaction, and strengthen educational institutions.

One thing made clear by this study is that program evaluations are needed, and they should become a standard for benchmarking and performance, not a process done on rare occasions. SLCC, like many other institutions, strives to create an advantageous education for its students, promotes growth and enrollment, and produces graduates who can successfully enter the workforce or continue their education. These goals are only possible to do with data. By regularly evaluating programs, they can become optimized and adjusted to meet the growing and changing needs of the 21st century.

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Appendices

Appendix A. High Impact Teaching Practices

High Impact Teaching Practices

Experience	Definition	Example
First year courses and experiences	These are co-curricular programs that are aimed at increasing academic preparedness and retention.	Service-learning, Writing Intensive, Diversity, Peer Mentoring.
Learning communities	SLCC promote relationship students enroll in two or more courses for at least one semester. Courses share a common theme.	Courses provide community-building experiences Courses share one or more assignments Courses meet in one block Courses are team-taught Courses provide a joint syllabus Assignments are evaluated collaboratively by teachers
Common intellectual experiences	Provide a means for students, faculty, staff, and/or the surrounding community to engage in sustained, in-depth, and critical conversations on a shared issue or topic.	Encouraging students to read a common book, or collection of articles and or multi-media for the academic year Developing a common theme or question/problem that students engage with during the academic year Staging events associated with the common theme or common medium (e.g. discussion groups, panels, teaching circles, community conversations) Incorporating the common medium and/or theme into course curriculum Establishing learning communities engaged with the common medium and/or theme.

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Experience	Definition	Example
Collaborative assignments and projects	Providing students with opportunities to develop the knowledge and skills necessary to work with others in a professional and constructive manner. Collaboration becomes a High Impact Practice when students to critically engage with a diverse set of people in working towards a common goal.	A series of student study groups Collaborative assignment with individualized evaluation Short-term collaborative assignment with group summative evaluation Long-term collaborative project with group summative evaluation, peer review, revision, and reflection.
Diversity	Helps students critically examine the history, contributions of, and challenges confronting diverse groups and multicultural societies within the United States.	Courses and co-curricular projects at SLCC help students critically examine the history, contributions of, and challenges confronting diverse groups and multicultural societies within the United States.
Problem-based learning	Gives students wicked problems to solve based on observation and gathering evidence. It asks students to connect key concepts with active involvement in discipline-specific research.	Students work their way through a storyline/scenario based on an ill-structured or complex problem that they have to solve individually and/or as a group. In the scenario, students must apply both disciplinary and interdisciplinary knowledge, critical and creative thinking, and problem solving skills in a real-world context.

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Experience	Definition	Example
Community-engaged learning	Incorporates critical reflective thinking and civic engagement into academic coursework by means of integrating service opportunities with nonprofits, governmental, and/or educational community partners. Community-engaged learning involves students in activities that attend to local needs while developing their academic skills, increasing their subject matter knowledge, and commitment to their communities.	Faculty working with a non-profit community partner to inform course content and to identify potential research and inquiry path Students engage civically through advocacy Students practice critical reflection through such activities as journal writing, group discussion, or presentations.
Undergraduate research	Inquiry or investigation conducted by an undergraduate student that could involve innovative ideas, project-based learning, systematic study, empirical observation, or collaborative work with faculty.	Designing a research project, collecting data, and analyzing the results. Involvement in a faculty research project (for example, a literature review, data collection, etc.). Discovering independent research w ith support from a faculty mentor. Participating in case studies. Verifying existing research or metanalysis of previous bodies of work. Participating in a classroom curriculum that provides the necessary skills, training, and methodology in undergraduate research.

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Experience	Definition	Example
Internship/externship and co-operative education	Provides students with the opportunity to learn in a work setting pertinent to their program of study.	Working with an organization that adds value to a student's course of study. Work commitment based on agreement between College department partner organization. Critical reflection of work experience shared with appropriate audiences.
Global/international learning	Courses, programs, and co-curricular projects at SLCC help students explore cultures, life experiences, and worldviews different from their own.	Using a comparative framework to examine the dynamics of power and how it shapes social issues (i.e., service learning, learning communities, and study abroad). Projects and activities that collaboratively and equitably address the world's most pressing and enduring issues. Courses and programs that require students to explore, explain, and take informed positions on the complexities surrounding identity formation. Projects and activities that encourage students to think about the interconnectedness and interdependence of global systems.
ePortfolio	Students curate artifacts of their learning along with reflection.	Reflection activities, assignments, and projects embedded throughout the course curriculum. Early ePortfolio Set Up assignment/project that encourages students to create relevant, engaging, and meaningful content on the required pages. Multimodal assignments and projects that students are encouraged to showcase in their ePortfolios.

(Continues on next page)

Experience	Definition	Example
Capstone projects	Reflective projected that are completed towards the end of the student's education experience.	Research papers, performances, field work, productions, a portfolio of best work
Publication studies	focus on the process of text production—writing—but extends that process to include considering how to make that writing public.	Students take a piece they have written for the class and reimagine it as a public piece—a booklet, a chapbook, a broadside, a web text. Students work collaboratively to revise and publish an anthology or journal, designing, laying out, and producing a short book. Students make handmade books of their learning work—crystallizing critical concepts into a flip book, for instance. Students stage an exhibit of their work, laid out and produced for display. Students adapt written work into multimedia work—podcasts, video essays, or digital stories—to be housed on a class website.
Writing intensive	These courses emphasize writing at all levels of instruction and across the curriculum. Students are encouraged to produce and revise various forms of writing for different audiences in different disciplines.	

Appendix B. Survey Instrument

Program Evaluation of Online and Face-to-Face College and Career Readiness and its Effect on Degree Utilization in Community College Graduates

You are invited to participate in a research study by Dr. Kelsey Hall, an associate professor, and Tyson Riskas, an instructor of business management at SLCC, and Ph.D. candidate, in the Department of Applied Sciences, Technology & Education at Utah State University.

The purpose of this research is to compare college and career readiness between online and face-to-face business school graduates and determine what factors explain degree utilization. Specifically, we are interested in learning if the business degree programs at SLCC are preparing and assisting graduates to complete their educational and work-based goals. You are being asked to participate in this research because you have graduated from the Gail Miller School of Business between 2019-2022 with a degree or certificate.

Your participation in this study is voluntary, and you may withdraw your participation, by closing out a browser for any reason. If you take part in this study, you will be asked to complete an online survey about college and career readiness that will assess your academic development, self-development, environmental influences, and personal demographics. This survey will take approximately 10 minutes to complete.

The possible risks of participating in this study include loss of confidentiality, additionally, there may be some questions that some may deem uncomfortable such as gender, ethnicity, and household income. We cannot guarantee that you will directly benefit from this study, but it has been designed to learn more about graduates' college and career readiness and its effect on helping graduates accomplish their goals.

We will make every effort to ensure that the information you provide remains confidential. We will not reveal your identity in any publications, presentations, or reports resulting from this research study.

We will collect your information through Qualtrics. Online activities always carry a risk of a data breach, but we will use systems and processes that minimize breach opportunities. This survey data will be securely stored in a restricted-access folder on Box.com. SPSS data files will be kept for 3 years and will be destroyed in August 2026. Winners' email addresses and gift card information will be stored in the same restricted-access folder on Box.com until May 1, 2023.

For your participation in this research study, you can choose to enter a drawing to win one of nine $25 Amazon gift cards. Qualification for gift cards only occurs for fully completed surveys, and winners will be notified via email the week after the survey closes. The Amazon gift cards will be delivered electronically to the email address provided by the winners.

You can decline to participate in any part of this study for any reason and can end your participation at any time but only surveys with all sections filled out will qualify for the Amazon gift cards. If you have any questions about this study, you can contact Tyson Riskas at (801) 427-8448 or a01636957@usu.edu. Thank you again for your time and consideration. If you have any concerns about this study, please contact Utah State University's Human Research Protection Office at (435) 797-0567 or irb@usu.edu.

By continuing to the College and Career Readiness Survey, you agree that you are 18 years of age or older and wish to participate. You agree that you understand the risks and benefits of

participation and that you know what you are being asked to do. You also agree that if you have contacted the research team with any questions about your participation and are clear on how to stop your participation in this study if you choose to do so. Please be sure to retain a copy of this form for your records.

Download the Informed Consent document for your records.

Please fully read the statement before continuing to the survey.

- ○ I have read the informed consent and agree to participate in the study.
- ○ I do not agree to participate in the study.

Skip To: End of Survey If Please fully read the statement before continuing to the survey. = I do not agree to participate in the study.

Q 1. Of the business classes you took at SLCC what percentage were taken online?

- ○ 80% - 100% online
- ○ Less than 80% online

Q 2. What degree/certificate did you obtain from SLCC?

- ○ Applied Associates of Science (AAS)
- ○ Associates of Science (AS)
- ○ Associates of Arts (AA)
- ○ CC
- ○ CP

End of Block: Informed Consent

Start of Block: Experiential Learning

Section 1: Experiential Learning

Q 3. My business courses at SLCC...

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Provided me with a direct practical experience to help understand course concepts. (e.g., case studies, solving industry specific problems, using discipline-specific technologies)	○	○	○	○	○
Gave me concrete experiences (e.g., group projects and presentations, writing 24 pages or more, undergraduate research) that helped me learn class material.	○	○	○	○	○
Presented me with a “real world” experience related my courses. (e.g., working with companies, participating in field work).	○	○	○	○	○

Q 4. My business courses at SLCC...

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Assisted me in thinking about what my course material really meant to me. (e.g., journal writing, group discussions, reflective essays).	○	○	○	○	○
Helped me relate my personal experiences to the content of my courses (e.g., journal writing, reflective essays, other reflective activities).	○	○	○	○	○
Aided me in connecting course content with things I learned in the past (e.g., journal writing, e-portfolio assignments).	○	○	○	○	○

Q 5. My business courses at SLCC...

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Required me to think how to correctly use the terms and concepts from my classes (e.g. group discussions, essays, undergraduate research, role playing).	○	○	○	○	○
Caused me to think how course concepts were inter-related (e.g., e-portfolio assignments, role playing, guest lecturers).	○	○	○	○	○
Made me organize class concepts into meaningful formats (e.g., e-portfolio assignments, undergraduate research, group discussions, exhibiting student work).	○	○	○	○	○

Q 6. My business courses at SLCC...

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Made it possible for me to try things out for myself (e.g., role playing, case studies, using industry specific technologies, civic advocacy, collaborative assignments with individual evaluation).	○	○	○	○	○
Permitted me to actively test my ideas of how course materials can be applied (e.g., working with an organization, co-operative assignments, multimodal assignments).	○	○	○	○	○
Allowed me to experiment with course concepts in order to understand them (e.g., group activities, using industry specific technologies, adapting written work into multimedia work).	○	○	○	○	○

End of Block: Experiential Learning

Start of Block: Institutional Career Services

Section 2: Institutional Career Services

Q 7. How helpful was each of the career center services in your job search and/or career planning?

	Very helpful	Somewhat helpful	Somewhat unhelpful	Very unhelpful	Not Used
Work for credit	○	○	○	○	○
Focus 2 Career	○	○	○	○	○
Myers Briggs Personality Assessment	○	○	○	○	○
Virtual job shadow	○	○	○	○	○
Job search training	○	○	○	○	○
Career workshops	○	○	○	○	○
Service Learning	○	○	○	○	○
Campus Internship Program (CIP)	○	○	○	○	○
Study abroad	○	○	○	○	○
SLCC job fair	○	○	○	○	○

End of Block: Institutional Career Services

Start of Block: Employability Skills

Section 3: Employability Skills

Q 8. To what level do you agree with the following:

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
After graduating, you knew how to better develop plans to achieve your objectives.	○	○	○	○	○
After graduating, you could better develop step-by-step plans to reach your goals.	○	○	○	○	○
After graduating, you could more effectively find the causes and solutions to a problem.	○	○	○	○	○
After graduating, you could better develop new tools and methods to resolve problems.	○	○	○	○	○
After graduating, you could more effectively take concrete actions to implement your plans.	○	○	○	○	○

Q 9. To what level do you agree with the following:

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
After graduating, you better understood the rules and expectations in interacting with others.	○	○	○	○	○
After graduating, you were able to more effectively interact with others in a cooperative and peaceful way	○	○	○	○	○
After graduating, you could better recognize when people had different skills to contribute to a task.	○	○	○	○	○
After graduating, you could more carefully listen to what others said, and you were able to check to make sure you understood what they meant.	○	○	○	○	○

Q 10. To what level do you agree with the following?

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
After graduating, and if you initially failed, you were better able to get up and try again.	○	○	○	○	○
After graduating, you were more willing to work hard and achieve your dreams.	○	○	○	○	○
After graduating, and were faced with difficulties, you were more effective at trying several ways to improve things to overcome the challenges.	○	○	○	○	○
After graduating, and when you did not understand something, you were better at asking questions or reading more until you understood.	○	○	○	○	○

Q 11. To what level do you agree with the following:

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
After graduating, you were more able to stay calm in new situations where you were required to make many decisions.	○	○	○	○	○
After graduating, you were more able to think before you acted.	○	○	○	○	○
After graduating, you could better manage your emotions, without letting anger control you, when you had a conflict with others.	○	○	○	○	○
After graduating, you were more able to appropriately show your emotions and seek help when you were unhappy.	○	○	○	○	○

End of Block: Employability Skills

Start of Block: Technical Skill

Section 4: Technical Skills

Q 12. What was your GPA range upon graduation?

- 3.7-4.0
- 3.3-3.69
- 3.0-3.29
- 2.7-2.99
- 2.3-2.69
- 2.0-2.29
- Less than 2.0

End of Block: Technical Skill

Start of Block: Self Development

Section 5: Self Development

Q 13. To what level do you agree with the following?

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
After graduating, you felt more confident in doing most things if you try.	○	○	○	○	○
After graduating, you were more likely to give a lot of effort and do your work well, even when no one else was checking what you did.	○	○	○	○	○
After graduating, you felt people could count on you more to complete tasks.	○	○	○	○	○
After graduating, It was easier for you to finish the tasks you started.	○	○	○	○	○

Q 14. To what extent to you agree with the following?

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
After graduating, you more often sought relevant help using search engines (e.g., Google, Yahoo).	○	○	○	○	○
After graduating, you would more often post questions or messages on relevant web forums requesting unknown experts' help (e.g., Reddit).	○	○	○	○	○
After graduating, you were more likely to seek proper websites, forums, or Bulletin Board System (BBS) to ask for unknown experts' help.	○	○	○	○	○
After graduating, you were more likely to seek peers' help in person or through social media.	○	○	○	○	○

Q 15. To what extent to you agree with the following?

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
After graduating, you were better at setting specific goals you want to complete within a year.	○	○	○	○	○
After graduating, you felt if you set goals that, you were more likely to take action to reach them.	○	○	○	○	○
After graduating, you were more likely to establish goals and plans for the future.	○	○	○	○	○
After graduating, It was more important to you that you achieve your goals.	○	○	○	○	○

Q 16. Please answer the following about goal setting in your courses at SLCC.

	Never	Sometimes	About half the time	Most of the time	Always
In your business courses, how often were you asked to set goals?	○	○	○	○	○

End of Block: Self Development

Start of Block: Degree Utilization

Section 6: Degree Utilization

Q 17. After completing a degree/certificate, how frequently have you utilized the following elements of your degree/certificate?

	Never	Sometimes	About half the time	Most of the time	Always
I use the skills obtained from my degree/certificate.	○	○	○	○	○
I use the network I developed from my degree/certificate.	○	○	○	○	○
I reflect on or use the experiences I had from obtaining my degree/certificate to solve current problems.	○	○	○	○	○

Display This Question:

If Degree utilization = Never

And Degree utilization = I use the skills obtained from my degree/certificate. [Never]

And Degree utilization = I reflect on or use the experiences I had from obtaining my degree/certificate to solve current problems. [Never]

Q 17a. What reason best describes why you have not utilized your degree?

- ○ My goals have changed
- ○ Loss of credits when attempting to transfer
- ○ Unanticipated life circumstances
- ○ Need additional skills for career progress
- ○ Other _____

Q 18. Select all that apply.

- [ ] I use the skills I gained from my education at SLCC in my current job.
- [ ] SLCC helped me gain knowledge and skills that are directly applicable to my current job.
- [ ] Earning a degree or certificate at SLCC has helped me qualify for a promotion.
- [ ] My degree/certificate I received from SLCC has been a valuable addition to my professional life.
- [ ] Earning a degree or certificate at SLCC has prepared me to continue my education.
- [ ] The knowledge I gained from my education at SLCC has helped me succeed in continuing my education.
- [ ] My degree/certificate I received from SLCC has NOT helped me in my professional life.

Page Break

Display This Question:

If 2. What degree/certificate did you obtain from SLCC? = Applied Associates of Science (AAS)

Or 2. What degree/certificate did you obtain from SLCC? = CC

Or 2. What degree/certificate did you obtain from SLCC? = CP

Q 19. To what level do you agree with the following?

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
I am actively looking for a job/career within my major.	○	○	○	○	○
I have had interviews since graduating.	○	○	○	○	○
I have received job offers since graduating.	○	○	○	○	○
What I learned at SLCC has helped me in my job search process.	○	○	○	○	○

Display This Question:

If 2. What degree/certificate did you obtain from SLCC? = Associates of Science (AS)

Or 2. What degree/certificate did you obtain from SLCC? = Associates of Arts (AA)

Q 19. In regards to transferring to another institution:

- ○ I have already begun classes at my new institution.
- ○ I have been accepted and will be starting classes soon.
- ○ I have not begun classes but have applied.
- ○ I have not begun but have spoken with a academic counselor.
- ○ I have not begun and have changed my plans.
- ○ I have not begun for other reasons.

End of Block: Degree Utilization

Start of Block: Demographics

Section 7: Demographics

Q 20. In what year did you graduate?

- 2019
- 2020
- 2021
- 2022

Q 21. What gender do you associate with?

- Male
- Female
- Non-binary / third gender
- Prefer not to say

Q 22. What is your race/ethnicity?

- White
- Black or African American
- American Indian or Alaska Native
- Asian
- Native Hawaiian or Pacific Islander
- Latino/Hispanic
- Other

Q 23. Were you a first generation college student (first in family to attend)?

- Yes
- No

Q 24. Were you enrolled:

- ○ Full-time (12 credits or more)
- ○ Part-time (less than 12 credits)
- ○ Full-time and Part-time (you were both throughout your education at SLCC)

Q 25. What was your age when you graduated SLCC?

- ○ <24
- ○ 25-34
- ○ 35-44
- ○ >45

End of Block: Demographics

Start of Block: Gift Card Entry

Thank you for taking the time to complete this survey! Your insights will be invaluable for gathering complete and accurate data. As a token of our appreciation, you can voluntarily enter a drawing to receive 1 of 9 gift cards (retail value of $25) for your time. The winners will be contacted by email and phone in May at the conclusion of the study. Your contact information will not be linked with your survey results.

Would you like to provide your name to be entered in a drawing? If you answer yes, you will be redirected to a new survey where you will submit your contact information. If you answer no, you will exit the survey.

- ○ Yes
- ○ No

End of Block: Gift Card Entry

Appendix C. Entry for Drawing

Entry for Drawing - Survey about College and Career Readiness of SLCC Business School Graduates

As a token of our appreciation, you can voluntarily enter a drawing to receive **1 of 9 $25 Amazon gift cards** for your time. Please enter your contact information below, which will not be used for any other purposes than to enter you in the drawing. The winner will be contacted by email and phone in March at the conclusion of the study. Your contact information will not be linked with your survey results.

- ○ Name (first and last) _____
- ○ Phone Number _____
- ○ Email Address _____

Appendix D. Initial Recruitment Email

Subject: You can make a big difference at SLCC! The Gail Miller School of Business College and Career Readiness Survey

Dear SLCC Graduate,

The Gail Miller School of Business needs your help! The business school is facing some complex challenges and you are instrumental in addressing some of these important issues. You have been selected to participate in 10-minute survey. This survey will ask about academic and personal factors that affected your college and career readiness and if that helped you to achieve your goals

Our goal is to better design our business programs to make sure that graduates can be successful in their endeavors post-graduation. You are instrumental to us in helping us understand how the Gail Miller School of Business is currently performing at developing college and career ready skills among graduates. By participating, you will help us understand more about how the Gail Miller School of Business is preparing graduates for further college education or entering the workforce and help us set benchmarks to compare future graduating classes.

Below you will find a link to the College and Career Readiness Survey.
https://usu.co1.qualtrics.com/jfe/form/SV_dnIZ1eCwlDuKTPg

The results of this survey will be extremely useful for Salt Lake Community College and can help guide improvements in our courses and teacher development. To say thank you for your participation you can be entered to win one of nine $25 Amazon Gift cards.

If you have any questions about the survey or the research or would like to unsubscribe from these emails, please contact Tyson Riskas (a01636957@usu.edu) and reference USU IRB Protocol # 13161. Thank you in advance for your willingness to help better understand how SLCC is developing college and career readiness.

Sincerely,
Tyson Riskas
SLCC Instructor
Utah State University Graduate Student

Kelsey Hall
Associate Professor
Utah State University

Appendix E. 1st Follow-up Email (Second Contact)

Subject: Reminder, Complete the Gail Miller School of Business's Survey about College and Career Readiness

Dear SLCC Graduate,

I am reaching out to enlist your help. A week ago, we sent you an email with a link to an important survey about college and career readiness of graduates from Salt Lake Community College's School of Business and if getting a degree at SLCC helped you accomplish your goals.

Your responses will be instrumental in our understanding the development of college and career readiness in the School of Business and its effect on the accomplishment of your personal work or educational goals.

We understand that you are very busy and if you haven't had a chance to complete the survey, there is still time. If you've already started it, you can still complete it. The average completion time for those who have responded is 10 minutes.

Just follow the link below and complete the survey.
Link here https://usu.co1.qualtrics.com/jfe/form/SV_dnIZ1eCwlDuKTPg

To say thank you for your participation you can be entered to win one of nine $25 Amazon Gift cards. Your answers are instrumental in the future success of the Gail Miller School of Business at SLCC If you have any questions about the survey or the research or would like to unsubscribe from these emails, please contact Tyson Riskas (a01636957@usu.edu) and reference USU IRB Protocol # 13161. I appreciate your time and your honest responses.

Sincerely,

Tyson Riskas
SLCC Instructor
Utah State University Graduate Student

Kelsey Hall
Associate Professor
Utah State University

Appendix F. Final Email Reminder And Thank You

Subject: Last Chance to Make a Difference at SLCC.

Dear SLCC Graduate,

SLCC really needs you, and we are reaching out to you one last time to encourage you to complete the College and Career Readiness Survey. If you haven't had a chance to take the survey, there is still time. Please take 10 minutes and follow the link below to complete the survey online. Your answers are very important to our understanding of how the School of Business at SLCC aids in the development of college and career readiness.

For your convenience, here is the link to access the survey:
https://usu.co1.qualtrics.com/jfe/form/SV_dnIZ1eCwlDuKTPg

To say thank you for your participation you can be entered to win one of nine $25 Amazon Gift cards. We greatly appreciate your time and look forward to learning how SLCC aided you in the development of your college and career readiness and if you have been able to accomplish your goals since graduating If you have any questions about the survey or the research, please contact Tyson Riskas (a01636957@usu.edu) and reference USU IRB Protocol # 13161.

Sincerely,
Tyson Riskas
SLCC Instructor
Utah State University Graduate Student

Kelsey Hall
Associate Professor
Utah State University

Appendix G. Levene Test for CCR Variables and Delivery Method

Levene Test Statistics for CCR variables and Sociodemographic Factors

Combined IV Groups	Levene Statistic	*p*
Experiential Learning		
DM x G	0.752	.525
DM x FGS	0.988	.404
DM x R	0.732	.601
Critical Thinking		
DM x G	2.957	.038
DM x FGS	1.285	.287
DM x R	0.814	.543
Communication and Listening		
DM x G	1.784	.158
DM x FGS	1.493	.224
DM x R	1.674	.152
Perseverance		
DM x G	1.584	.201
DM x FGS	0.471	.703
DM x R	2.026	.085
Emotional Intelligence		
DM x G	0.293	.830
DM x FGS	0.192	.901
DM x R	2.328	.052
Help-Seeking		
DM x G	0.819	.488
DM x FGS	0.337	.799
DM x R	0.375	.864
Self-Determination		
DM x G	3.07	.034
DM x FGS	2.65	.056
DM x R	2.853	.022

Appendix H. Durbin-Watson statistics for Multiple Regression

Durbin-Watson Statistics for Multiple Regression

Variable	Durbin-Watson
Age + Experiential learning	2.24
Age + Critical thinking	2.27
Age + Communication and listening	2.10
Age + Perseverance	2.26
Age + Emotional intelligence	2.08
Age + Help-seeking	2.30
Age + Self-determination	2.26
GPA + Experiential learning	2.21
GPA + Critical thinking	2.26
GPA + Communication and listening	2.10
GPA + Perseverance	2.23
GPA + Emotional Intelligence	2.11
GPA + Help-seeking	2.23
GPA + Self-determination	2.26

CURRICULUM VITAE

Tyson Riskas

EDUCATION

Ph.D. (ABD), CTE - Business Education - Curriculum and Instruction, Utah State University, Logan UT (expected graduation Fall 2023)

Dissertation Title: Program Evaluation of Online and Face-to-Face College and Career Readiness in Community College Graduates.

MBA, University of Utah, Salt Lake City, UT, Winter 2013

BS, Business Management, Utah Valley University, Orem UT, Spring 2009

WORK HISTORY

Academic Experience

- Lecturer, Utah Valley University, Orem, Utah, Fall 2022 - present
- Assistant Professor, Salt Lake Community College, Taylorsville UT, Fall 2018-Spring 2023
- Faculty Development, Ensign College, previously LDS Business College, April 2018 - July 2018
- Adjunct Professor, Ensign College, previously LDS Business College, Spring 2016 - Summer 2018

Industry Experience

- Riskas Social Media Consulting - Owner, Cedar Hills UT, 2016-present
- Washed LLC - Owner, Provo UT, 2014-2016
- Southwest Children's Clinic - Administrator, West Jordan UT, 2013-2014
- Color Me Rad - Director of Assets/Franchise Owner, 2012-2014

CLASSES TAUGHT

Salt Lake Community College

- **Introduction to Marketing** - *Introduction to Marketing covers many basic marketing concepts. The primary objective of this class is to establish a foundation for the marketing process. Course materials are designed to develop general and specialized marketing knowledge. Objectives for each subject unit are listed at the beginning of each section of the text.*

- **Customer Service** - *This course covers the basic business service skills for internal and external customers. It also discusses conflict management, stress, professionalism, time management, and telephone usage. Course may be taught with a Service-Learning component.*
- **Introduction to Business** - *This introductory business course exposes students to the diverse world of business, revealing how each of us is connected to business personally and professionally and how business connects us culturally and socially. Students learn how individuals' function within a specific field and how various disciplines work together in cross-functional teams.*
- **Business Foundations** - *Historical, sociological, and philosophical overview of the fundamental aspects of business. Topics: business in a world in change, socioeconomics, the human factor, ethics in the workplace, and social responsibility in a global market.*
- **Business Ethics** - *Students develop judgment about workplace ethics through critical reading, thinking, writing, research, and analysis; consider issues from multiple disciplines/opposing views; choose research/service-learning projects and write reports.*

Utah Valley University (UVU)

- **Business Computer Proficiency -** *Encompasses two software applications, Microsoft Excel and Microsoft Access, from a business perspective. Covers intermediate-level problem-solving and production skills. Uses business applications in case study settings to solve problems and accomplish tasks.*
- **Spreadsheet Applications -** *This course aims to provide students with an extensive study of Microsoft's electronic spreadsheets, Microsoft Office 365/Excel 2019). This will be accomplished using hands-on tutorials, computer-simulated activities, examinations, assignments, and a classroom learning community emphasizing practical business applications. It also provides comprehensive coverage of features available within the application, such as building charts, tables, functions, add-ins, macros, and more.*

Ensign College (LDSBC)

- **Introduction to Social Media** - *Build foundational knowledge and professional skills on Facebook, Twitter, Pinterest, Instagram, YouTube, Linked In, and Blogs. Instruct how to research, use strategy and tactics, create engaging content, establish a following, & understand legal issues that confront social media. Gain a high-level understanding of key marketing principles and strategies. Learn how companies use social media for marketing, analytics, customer service, and more. Create a marketing campaign for an organization, pitch it, and effectively execute & evaluate it.*
- **Social Media Strategy** - *In this course, students will learn to establish a Vision, set guiding and measurable Social Media Marketing Goals, identify, and define Target Audiences, apply Social Media Marketing tactics, and measure, analyze, and assess results. Comprehension and application of these principles will enable*

students to build an effective Social Media Marketing strategy for brands and businesses that achieves business objectives.

- **Social Media Advertising** - *Students will study, at a high level, how to implement a strong social advertising strategy. Students are instructed on audience growth strategy vs. conversion targeting and how to measure and optimize both.*
- **Social Media Analytics** - *This class teaches how to capture the correct data and then know what to do with it. Students will learn to use free and paid tools to capture and analyze data from various online platforms. Data and analytics are valuable because students are much better positioned to make the right decisions.*

COMMITTEES/ASSIGNMENTS

- School of Business Area Design Team - This committee is responsible for redesigning the current business management curriculum, focusing on adjusting outcomes to meet industry demands.
- School of Business Marketing Committee - This committee has been assigned the task of department-based marketing efforts, which have focused on social media, email campaigns, advertisements, website development, and student enrollment.
- SLCC Concurrent Enrollment - I am the faculty liaison for the Introduction to Business and Introduction to Marketing courses for a total of about 12 local high school concurrent enrollment programs.
- Articulation Committee - I am the school of management representative for multi-institution articulation agreements. I am responsible for contacting and negotiating articulation agreements between the Gail Miller School of Business and various Utah institutions.
- SLCC School of Business Diversity Learning Committee - As one of five faculty members, this committee was tasked with fostering diversity, equity, and inclusion (DEI) within the business curriculum.

PUBLICATIONS

Evaluating [State's] Rural Online Initiative: Empowering Organizational Leaders Through Remote Work. Journal of Human Sciences and Extension

PRESENTATIONS

ACTE Region V Virtual Conference - Using Project Management to Foster Student Autonomy - April 2021

COMMUNITY SERVICE

Weber State University

- Student Entrepreneurial Mentor, Fall 2020

Certifications

- The Association of College and University Educators - Certificate of Effective Instruction - 2019
- Salt Lake Community College - Online Teacher Credential - 2019
- Scrum Master Certification - Platinum Edge - 2018