EXPLORING THE ROLE OF INNOVATION ACROSS SOCIAL AND ACADEMIC

INTEGRATION FOR FIRST-GENERATION CARIBBEAN UNDERGRADUATE

PERSISTENCE

by

Angelina N. Carvalhal

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Philosophy

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Abstract

The purpose of this intrinsic case study was to understand how innovation across social and academic integration among first-generation Caribbean Undergraduates supports persistence at three public universities in the Northeast. The theory underpinning this study was Tinto's dropout theory and theory of institutional departure. Tinto's theory connected to this study of how supporting innovation through social and academic integration supports the persistence of first-generation Caribbean Undergraduates. The central research question guiding this study was: How has innovative academic content delivery affected the retention of first-generation Caribbean Undergraduates? Purposeful sampling was applied to interview students on-site, while random sampling was applied to select students for participation in a focus group to gain an understanding of how students interpret innovative content delivery. Letter writing from the students themselves was analyzed to compare how their ideas about innovation evolved over time. Themes of endurance, educational expectation, educational aspiration, and enriched motivation, and the sub-themes of continuity, accessibility and convenience, collaboration and engagement, efficiency, increased motivation, professional development, building community, academic resources, social resources, and stress management were identified. The results of this study indicated innovative content delivery for first-generation Caribbean Undergraduates supports persistence. Innovation takes on various forms due to the academic freedom of the faculty, supporting active learning that inherently promotes social and academic integration.

Keywords: first-generation Caribbean undergraduates, innovation, active learning, persistence

Copyright Page

Dedication

I dedicate this dissertation to my children, Aaromel, Amelina, Jacob, and John. May you pursue knowledge throughout your lives. I also want to thank my husband, Romel, for always believing in me, my parents, Niebert and Michael, for encouraging me to pursue my dreams, and my sister, Adelina, for always supporting me and cheering me on. You all are my inspiration and source of strength.

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I thank God for instilling in me the determination and courage to persevere. Through God, all things are possible.

I thank Dr. Sharon Farrell and Dr. James Sigler, who guided and mentored me toward completing my dissertation.

I want to acknowledge the exceptional educators who exceed expectations in creating inclusive, innovative curricula that engage and inspire their students.

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List of Abbreviations

First Generation Caribbean Undergraduate (FGCU)

Grade Point Average (GPA)

Higher Education Institutions (HEIs)

Institutional Effectiveness (IE)

Intelligent Tutoring Systems (ITS)

Learning Management System (LMS)

National Survey for Student Engagement (NSSE)

Open Educational Resources (OER)

Pell Federal Grant for a student's financial aid (PELL)

Project-Based Learning (PJBL)

Problem-Based Learning (PBL)

Science, Technology, Engineering, Mathematics (STEM)

Southern Association of Colleges and Schools Commission on Colleges (SACSCOC)

Student Satisfaction Inventory (SSI)

The Institute for College Access and Success (TICAS)

Tuition Assistance Program (TAP)

United Nations Children's Fund (UNICEF)

Urban Public University (UPC)

CHAPTER ONE: INTRODUCTION

Overview

Undergraduate enrollments continue to be a challenge post-pandemic. Nationally, Spring 2021 undergraduate enrollment declined by approximately 5% from Spring 2020 (Kwakye et al., 2021; National Student Clearinghouse Research Center, 2022). Higher education institutions pivoted towards digital learning strategies during the COVID-19 pandemic, which provided significant pedagogical shifts from traditional brick-and-mortar classrooms to online learning (Ali, 2020). Digital learning exposed inequalities to access, equity, and affordability that could have adverse long-term occupational development for undergraduates (Childs et al., 2022). In addition to those discoveries, first-generation Caribbean undergraduates (FGCUs) have extra layers of complexities such as family background, race, ethnicity, gender, and socioeconomics (Engle & Tinto, 2008; Tate et al., 2015) that affect their educational experiences. However, the missing element is how the innovation of academic content delivery to FGCUs addresses the disparities to support their persistence.

Empirically significant, the topic can be studied qualitatively and quantitatively. A qualitative study allows the participants to tell their stories in their authentic voices to capture the essence of their experiences and bring them to life (Creswell & Poth, 2018). Innovation across social and academic integration will affect pedagogy, curriculum design, and programming for FGCUs. The purpose of this single-bounded intrinsic case study was to understand how innovation across social and academic integration for FGCUs supports persistence at an urban public university in the Northeast. The research findings help capture the experiences of FGCUs' social and academic integration through innovative academic content delivery to support their persistence. Chapter One of this dissertation focuses on presenting the foundational elements for

the research, including pertinent historical, social, and theoretical contextual background information in addition to my motivation to study the topic. The problem and purpose statements provide the context and focus of the research along with the significance of the research, as well as key terms and definitions applied throughout the research.

Background

Over the years, Caribbean immigrants have sought refuge in the United States (Lorenzi & Batlova, 2022). Many see the United States as a means to opportunities through higher education to achieve occupational success. As a result, the ethnic and racial demographics are changing, and the student body's makeup is expected to include more immigrants than in the past (Batalova & Israel, 2021). From 2020 to 2021, foreign-born employment increased by 1.6 million or 6.5% (Bureau of Labor Statistics, 2022). In 2021, 1.07 million foreign-born Black ethnic workers with a bachelor's or higher entered the workforce, and 2.15 million foreign-born workers of Latino ethnicity entered the workforce (Bureau of Labor Statistics, 2020). The immigrant population is increasing and adding to the United States labor force; almost one in every five U.S. residents will have immigrated from another country by 2050 (George Mwangi et al., 2021). In 2018, first-generation immigrants entered higher education institutions at higher rates than students from second and third-generation immigrant families (Batalova & Israel, 2021). This section summarizes the findings of relevant literature relating to the phenomenon of how innovative academic content supports FGCUs' persistence within the contexts of historical, social, and theoretical underpinnings.

Historical Context

Tinto's (1975) seminal work captured the elements that demonstrate the different forces that affect student departure from an institution. He categorized voluntary, non-voluntary,

transfers to another institution, and permanent as the four types of dropouts a student can encounter along their educational journey. His work revealed and described the complexities that create a situation for a learner to stay or leave an institution created by a student's influences, such as family background, preparation for college, and individual temperament that sum into goals and commitment. A student's academic and social connections to the institution will determine the path the student takes. Scholars have studied Tinto's (1975) dropout model and theory of institutional departure for decades because of its transferability within all learner demographics. The concepts provide a universality grounded in commonality, foundational to most social and societal groups. It is important to note that the heterogeneity among FGCUs regarding ethnicity, race, and socioeconomics will affect their experiences in higher education (Becerra, 2010; Griffin et al., 2016; Malcolm & Mendoza, 2014; Nguyen & Nguyen, 2018). Due to these factors, they feel like outsiders when entering higher education. They lack a sense of belonging and connectedness (Azmitia et al., 2018), a sentiment other immigrant populations share. Concurrently, they feel a sense of pride in their identity that helps motivate them (Havlik et al., 2017). These factors will shape their perceptions of an institution and should be considered regarding social and academic programming when FGCUs enter higher education institutions. first-generation Caribbean learners have historically strived to reach maximum educational and occupational prosperity once in America (Xue & Brown, 2001).

International students faced similar experiences to those of FGCUs. Enthused by the opportunity to study abroad on student visas for varying circumstances and durations of study, international students are attracted to American higher education. Student visas are categorized into different types. F-1 visas are for full-time students enrolled in language training programs at high schools or higher education institutions. M-1 visas are issued to full-time students at

vocational institutions. F-3 or M-3 visas are for Canadian and Mexican citizens who commute to the United States for full-time or part-time study at academic or vocational institutions. J-1 visas are issued to exchange students participating in cultural or educational programs (Batalova & Israel, 2021). These visas offer the opportunity to get into the American labor market post-graduation. Equally important, higher education institutions were not adequately prepared to engage or support the 74% influx of international students between 2007 and 2015 to the 13 leading public institutions (Choudaha, 2016).

Social Context

Programs and policies related to social and academic integrations have socially affected FGCUs throughout higher education. Various studies have examined the correlation between social and academic integration in blended synchronous graduate courses (Lakhal et al., 2020), as well as ethnic minority and majority groups (Severiens & Wolff, 2008), and voluntary freshman attrition (Terenzini & Pascarella, 1977). However, research still needs to adequately address innovative academic content delivery to FGCUs to encourage social and academic integration within a specific institution. Innovation is described as integrating novel concepts through knowledge and inventiveness (Agarwal, 2018). Equitable access to programs that ensure all FGCUs receive the social and academic support necessary along their longitudinal educational journey (Tinto, 1975) will play a significant role in the short-term and long-term state of the American economy as they join the workforce (Batalova & Israel, 2021).

In addition to the societal impact placing significance on innovative social and academic integration of FGCUs, it validates the academic freedom of both learners and academicians. Educators believe that schools should implement more innovation to educate 21st-century students (Alenezi, 2016). While there are many instances where a pedagogy of innovation

enhances the curriculum, even more challenges have surfaced in recent years that prevent educators from embracing innovation entirely. Hartman et al. (2019) noted that 78% of learners between ages 14 – 23 believe educators add value to the classroom experience. However, only 39% would prefer traditional-led education. This knowledge opens opportunities for educators to utilize pedagogy through innovation to bolster social and academic integration for FGCUs and promote better outcomes in society.

Theoretical Context

The human desire to belong to a group is an innate natural feeling among humans that crosses cultural boundaries, presenting it as a universal trait among people (Baumeister & Leary, 1995). Previous studies related to minority groups, including students from lower socio-economic backgrounds (Ostrove & Long, 2007), students of color (Walton & Cohen, 2007), and women in Science, Technology, Engineering, and Math (STEM: Walton et al., 2015) have demonstrated positive academic gains because of social belonging supporting the theory of departure (Tinto, 1975). The holistic experience of FGCUs encompasses every aspect of their longitudinal educational journey (Tinto, 1975), the least of them being co-curricular activities and the cultural hurdles at an institution due to a lack of cultural assimilation (Museus & Maramba, 2011) in addition to the lack of diversity (Griffin et al., 2016) and negative reception on campus due to race (Hope et al., 2016; Leath et al., 2019). The theoretical framework of institutional departure and theoretical dropout model in these studies fall short because they expound on minority groups but are inadequate for understanding the problem of innovative academic content delivery for FGCUs.

Problem Statement

The problem is that FGCUs are overlooked in the distribution practices of educational content. Tinto's (1975) dropout theory and theory of institutional departure demonstrate many reasons for a student to leave an institution. However, the primary reasons are a lack of social integration into a campus community, an absence of connection with peers and faculty, and poor academic performance. Through the years, scholars have suggested that the critical point of a student's social and academic integration into a campus is during their first-year experience (Baklashova & Kazakov, 2016; McInnis, 2001; Skene et al., 2006; G. Zhou & Zhang, 2014). Nonetheless, the longitudinal journey of a student is filled with multi-layer complexities. Students' educational and occupational expectations (Schnettler et al., 2020), aspirations, and outside forces are crucial to student persistence (Tinto, 1975). These elements subtly overlap and interact, manifesting a student's dedication and perseverance. The immigrant population is rapidly growing, and estimates show that by 2050, 37% of U.S. residents will comprise first- and second-generation immigrants (Ashkar, 2021). As immigrants continue to seek higher education, it will be essential for educators to adopt innovative pedagogical teaching strategies to augment students' educational experiences that address them holistically (Agarwal, 2017, 2018).

Recognizing the multicultural complexities of the diverse immigrant population entering college is essential for effective programming (Mwangi et al., 2021). Employing creative techniques may improve institutions' overall key performance indicators that measure institutional success and the success of FGCUs. Through innovative social and academic programming, institutions can create pathways that may achieve better outcomes for FGCUs. Enrollments have been down nationally by approximately 1.3 million since the spring of 2020 (National Student Clearinghouse Research Center, 2022), suggesting a need for a reinvigoration

of higher education institutions to address the needs of the college students through innovation, the least of them being academic and social integration. While there have been many studies on first-generation immigrant students, this study seeks to verify the efficacy of novel social and academic programming that delivers educational content to FGCUs. A qualitative study on the distribution practices of educational content relating to first-generation Caribbean student persistence demonstrates a practical need for the research.

Purpose Statement

The purpose of this intrinsic case study was to understand how innovation across social and academic integration among FGCUs supports persistence at a public urban university in northeast New Jersey. For the purpose of this research, innovation is generally defined as integrating novel concepts through knowledge and inventiveness (Agarwal, 2018). The theory that guided this study was Tinto's (1975) dropout theory and theory of institutional departure. This theory relates to the phenomenon because it provides insight into the factors contributing to a student's decision to leave an institution before completion. In today's world, where the burden of funding for student education has shifted from the state to students themselves (Tight, 2020), this theory becomes increasingly relevant as institutions focus on creating programming best suited to foster student persistence.

Significance of the Study

This study contributes to the knowledge base to better understand the efficacy of innovative academic content delivery relating to FGCUs' persistence. Innovative academic content delivery, like different majors, will have differing degrees of experience for each student, ultimately shaping their social and academic integration to affect varying retention levels (Warren, 2020). The research findings may benefit administrators, educators, and institutions by

highlighting how FGCUs' experiences through social and academic integration influence

persistence through innovative academic content delivery. As institutions aim to expand their

innovative reach and engage with students through social and academic programs, it is crucial to

understand how innovation affects various segments of the student body. The research was

intended to develop an understanding of innovative content delivery and how it influences social

and academic integration for FGCUs. There is a shortage of qualitative case studies pertaining to

the influence of how innovation creates persistence through social and academic integration for

FGCUs. This section presents the intentions of the research in more detail within the empirical,

theoretical, and practical context.

Theoretical

The theoretical importance of the research contributes to the prevailing Tinto (1975)

dropout theory and theory of institutional departure. Institutions and educators should consider

the students holistically through a social and academic lens when creating programming to

support academic persistence. The entire campus community would benefit from innovative

social and academic programming as it may bolster retention, matriculation, and graduations tied

to state appropriations that give scholarships to students (State Higher Education Executive

Officer Association, 2021).

Empirical

The researcher aimed to empirically expand the understanding of innovative academic

content delivery that may influence FGCUs' persistence through qualitative research questions to

bring forth the essence of the participant's experiences. A positive correlation can be drawn

between student attrition and social and academic integration (Tinto, 1973), which is

synonymous with achieving student success and leading to higher retention, matriculation, and

graduation for institutions. There is a shortage of quantitative case studies on influencing

FGCUs' persistence through innovative academic content delivery.

Practical

The research was practical because it contributed to understanding how innovative

academic content delivery affects FGCUs' persistence. This understanding underscores the

power of innovative pedagogical strategies that an educator is granted through academic freedom

(Finn, 2020). Responses to questions that emphasize innovative experiences assist in helping

educators create programming that demonstrates academic persistence through innovative

content delivery for FGCUs.

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Research Questions

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The purpose of this intrinsic case study was to understand how innovation across social

and academic integration among FGCUs supports persistence at a public urban university in

northeast New Jersey. Analyzing the efficacy of innovative academic content delivery through

social and academic integration programs for FGCUs expands the current literature to enhance

awareness in the educational community. Innovative academic content may be viewed as new

methods or approaches in education (Y. Zhou & Zhou, 2022). The central research questions and

sub-questions helped direct the research.

Central Research Question

How has innovative academic content delivery affected the retention of FGCUs?

Sub-Question One

How does exposure to innovative academic content delivery influence the educational

expectations of FGCUs?

Sub-Question Two

How have the educational aspirations of FGCUs changed since engaging with innovative academic content delivery?

Sub-Question Three

How have experiences with innovative academic content delivery influenced the educational motivation of FGCUs?

Definitions

1. *Caribbean student* - Any person from the 15 countries comprising the Caribbean Community and Common Market (Verrest et al., 2013).

2. *Case study* - A qualitative research design that evaluates a phenomenon in-depth within a real-world context (Yin, 2018).

3. *First-generation Caribbean undergraduates*- A person from all Caribbean islands without U.S. citizenship at birth, which includes naturalized citizens, legal permanent residents, temporary visa holders, and unauthorized residents. (Lorenzi & Batlova, 2022).

4. *Innovation* - Integrating novel concepts through knowledge and inventiveness (Agarwal, 2018).

5. *Open educational resources*- A free of cost textbooks like traditional and licensed to allow revision and reuse (Ozdemir & Hendricks, 2017)

6. *Performance-based funding*- Government appropriations granted to institutions based on student outcomes (Hu et al., 2022).

7. *Science, technology, engineering, and mathematics (STEM)* – A consorted effort by the government to prioritize STEM programs at an early age to enhance America's global standing against competing nations (Catterall, 2017).

Summary

As more FGCU students enter higher education, institutions ought to create additional social and academic programs that address the complex dynamics of their heritage. Educators must become more sensitive to the changing demographics within the student body and how their perceptions of students impact students' performance (Gershenson et al., 2016; Mwangi & English, 2017). The ideas held by some of the homogeneous Black experience or the students with educational deficits (Harper & Nichols, 2008; Ladson-Billings, 2007) should be analyzed. The experiences of Black students in higher education are diverse and influenced by various factors, including their cultural background. For FGCUs and other Black students in higher education, cultural heritage plays a crucial role in how they perceive social and academic integration into the campus community. To build a robust educational ecosystem, it is crucial to consider the specific requirements and distinctive backgrounds of each individual (Mwangi & English, 2017). Besides cultural differences, FGCUs encounter disparities in access, equity, and affordability when entering higher education. Undoubtedly, these factors all play a role in how they perform in higher education. Their persistence will contribute to the 41 states whose institutions benefit from performance-based funding (PBF), which measures an institution's performance through student outcomes such as degree progression and production (Hu et al., 2022). The problem is the distribution practices of educational content relating to FGCUs, which affects their persistence. The purpose of this intrinsic case study was to understand how innovation across social and academic integration for FGCUs supports persistence at a public urban university in northeast New Jersey. The findings of this study aimed to contribute to understanding how innovative academic content delivery contributes to FGCUs' persistence. Chapter One presented an overview of the study's problem, purpose, and significance. Chapter

Two provides a comprehensive literature review regarding the issue and phenomenon under

investigation.

CHAPTER TWO: LITERATURE REVIEW

Overview

The purpose of this intrinsic case study was to understand how innovation across social and academic integration among first-generation Caribbean undergraduates (FGCUs) supports persistence at a public urban university in northeast New Jersey. This literature review helps to examine the efficacy of innovative academic programs that deliver educational content to FGCUs to support a positive holistic collegiate experience that dissuades dropouts through social and academic integration. This chapter presents an evaluation of the current literature related to the topic of study. The first section includes information on social and academic integration theory and issues significant to FGCUs' attrition. A synthesis of recent literature concerning first-generation retention and the role of social and academic integration, juxtaposed with curriculum resource availability relating to content delivery, is presented. Lastly, an analysis of how faculty's academic freedom through innovative pedagogy impacts student engagement, leading to better social and academic integration, is provided. A gap in the literature on the distribution practices of educational content relating to FGCUs' retention demonstrates a practical need for research.

Theoretical Framework

The theory that guided this study was Tinto's (1975) dropout theory and the theory of institutional departure (Tinto, 1973). Tinto (1975) described the broad spectrum of factors influencing a student's longitudinal educational journey to remain committed to an institution. Tinto (1975) highlighted the importance of taking a holistic approach to student success, which encompasses an intricate interplay of social, psychological, and behavioral variables that educators should consider when creating programs to inspire persistence. Students' perceptions

of their reality regarding their overall college experience motivate their educational persistence (Tinto, 1973). Institutions should be intentional with their efforts to acclimate students to the campus culture through social and academic integrations (Tinto, 1975).

The theories of Tinto were supported by the seminal works of French anthropologist Arnold Van Gennep and French sociologist Emile Durkheim (Tinto, 1975). Van Gennep et al. (1960), who wrote the *Rites of Passage*, pointed to distinct noteworthy transitory periods of one's life within a societal culture marked through ceremonial expression. These significant experiences could be marriage, death, birth, or when a child transitions into adulthood within a society. Nonetheless, how these periods in one's life are expressed through ceremony helps structure their respective community (Van Gennep et al., 1960). The transitory periods were earmarked as the separation, transition, and incorporation of these phases in one's life from personal experiences and social relatedness (Van Gennep et al., 1960).

Emile Durkheim's (1966) *Suicide* offers a framework for analysis of various societal conditions that may cause one to commit suicide. Altruistic, anomic, fatalistic, and egotistical are categorical archetypes of suicide that define the circumstances in a society that may cause one to end one's life (Durkheim, 1966). Durkheim emphasized the conditions in a community that might necessitate the situations that cause a person to end their life. Metaphorically, egotistical suicide is the life-ended conclusiveness that best fits and supports the pattern of institutional departure and dropout theory (Tinto, 1975).

While many factors interplay with a student's decision to leave college, the two primary explanations that were explored in this study were their social integration into a campus community through their connection with peers and faculty, and the other was intellectual integration through academic performance. Maladaptation in these areas of a student's life will

lead to an exit from the institution that may be voluntary because the institution does not fit their aspirational goals or involuntary because of an inability to maintain their academic standing (Tinto, 1975).

These networks should go beyond cultural ties to enrich students' experiences through social interactions to positively impact their academic experiences (Dean, 2015; Rienties & Tempelaar, 2018). For example, peer mentoring groups, summer bridge programs, first-year experience programs, first-year seminars, learning communities, collaborative assignments, student associations, and student clubs all have social functions that extend toward more robust academic integration within a campus community (Dean, 2015; Holt et al., 2017; Holt & Winter, 2018; Vetter et al., 2019). Institutions that pursue programs that spark their desire to initiate academic fortitude activate a joy of deeper learning through social connectedness, and passion for various citizenship that can be measured through assessments will support their overall success (Schreiner, 2016; Vetter et al., 2019).

Classroom education is a complex process that necessitates multimodal approaches to facilitate inquiry. It is more than what students come to know. It entails demonstrating what they know, formulating their opinions and behaviors, and looking beyond the success within the classroom that spills over into the world (Austin et al., 1992). To ensure students gain the experiences necessary for learning, educators must utilize pedagogical methodologies to enable opportunities within a course that activate and showcase learning through measurable assessment tasks that integrate intentional learning experiences (American Council of Education, 2017). Co-curricular or purposeful learning activities applied appropriately have demonstrated positive results in the underserved students' collegiate journey (Dean, 2015; Vetter et al., 2019). Nontraditional techniques allow flexibility and freedom of expression in profound ways that may

outweigh conventional teaching models and create opportunities for more connectedness to the learning process.

Related Literature

Student attrition and retention is a multivariate phenomenon that institutions of higher education have struggled with for decades (Burke, 2019; Manyanga et al., 2017), none of which has changed in recent years. The student body continues to evolve with complexities as student demographics expand and shift to include new segments of the population, increasing minority learners and growing the number of first-generation college students in higher education (Garriott & Nisle, 2018; Manyanga et al., 2017; McCallen & Johnson, 2020). First-generation students are frequently concerned with their academic fitness (Buskirk-Cohen, 2019; Hoffman et al., 2002), which could adversely impact their educational and social assimilation into an institution (Holt & Winter, 2018; Tinto, 1975), thereby disrupting their educational journey while negatively impacting institution retention, matriculation, and graduation rates. Many studies demonstrate that first-generation college students are more vulnerable and have a higher propensity to drop out than non-first-generation peers (Garriott & Nisle, 2018; Green & Wright, 2017; Pratt et al., 2019). These variables include family support, a sense of meager social belonging to the campus community, socioeconomics, and low academic performance (Garriott & Nisle, 2018; Green & Wright, 2017; Holt & Winter, 2018; Pratt et al., 2019). These elements will help define FGCUs' educational experiences in an institutional setting. Equally important to distinguish is a higher education institution's (HEI) effectiveness and accreditation, which are all of the fundamentals that sum up the overarching philosophy of an institution. Considering how these variables impact life and experiences on and off campus for FGCUs will allow the

institutions to modify programming to address social and academic integration to lessen the attrition rate for this segment of the student population.

Family Support

The family structure should be considered when FGCUs enter higher education as there are studies that demonstrate the influence of the family unit, which could have both positive and negative effects on FGCUs' enthusiasm to pursue higher education. Studies have shown that parents' attitudes toward education impact their children's educational motivation. The more positive and supportive a parent is about education, the higher the student's motivation to achieve academic excellence (Doucet, 2005; Raleigh & Kao, 2010). In this scenario, the family could be viewed as a source of inspiration and encouragement for FGCUs to strive to reach the American dream while pursuing a degree (Chlup et al., 2018; Perez et al., 2010). In other instances, the family is viewed as unresourceful because they lack awareness and understanding of how higher education functions and what to do to look attractive to an institution on a college application (Kouyoumdjian et al., 2017; Lauby, 2017). Some FGCUs do not get informational support and emotional encouragement from their family and friends when entering higher education because, much like students, they lack the knowledge to navigate higher education (McCallen & Johnson, 2020; Pratt et al., 2019).

The cultural experiences of FGCUs, though different from other immigrants, are similar in that all first-generation immigrants have cultural differences from their American peers. FGCUs see their racial identity as distinct from their African American counterpart. Their racial identity is a mixture of varying racial philosophies dissimilar to the White and Black race dichotomy in America (Doumerc, 2003; Sanchez, 2010; Yelvington, 2000). They have adopted and accepted many of the cultural morays from the diaspora of the Caribbean. So, like the social

disparities in the norms of the West juxtaposed to the East, because of cultural fit, first-generation immigrants do not share much information about their academic journey with their friends and families, which leaves them susceptible to stress that can cause dropout (Garriott & Nisle, 2018; Pratt et al., 2019). FGCUs often feel uneasy about going to school and spending too much time away from their family, thus causing stress and guilt, which could amplify dropout (Garriott & Nisle, 2018; Pratt et al., 2019).

Historical Background

It is essential to review Caribbean genealogy to intellectualize the different factors that comprise the cultural makeup that shapes FGCUs. Related to fitting into higher education, cultural attributes, such as ancestral heritage (Martin, 2016; Yelvington, 2000), linguistic diversity (de Kleine & Lawton, 2015; Nero, 2000), and religion (Taylor & Chatters, 2010) require attention to contextualizing these students in American higher education and society at large. Undoubtedly, these aspects will, directly and indirectly, impact their social and academic integration into higher education. A detailed review of these elements will also help to inform mental health strategies and programming needed to support international students (Mori, 2000; Prieto-Welch, 2016; Williams et al., 2018). Though some slight variances are found regarding ancestral heritage (Martin, 2016; Yelvington, 2000), linguistic diversity (de Kleine & Lawton, 2015; Nero, 2000), and religion (Taylor & Chatters, 2010), these aspects of FGCUs have psychological implications that affect a student's emotions and behaviors that inform how they understand and identify themselves in the world (Ammigan et al., 2023; Ward & Kennedy, 1999). They also impact how FGCUs experience and interpret their higher education, as their cultural background is an inescapable part of their identity and a reminder of their home country.

Foundationally, most Caribbean countries are rooted in West African heritage. Millions of Africans from Benin, Ghana, Guinea, Mali, Senegal, and Nigeria were shipped through the transatlantic slave trade to Caribbean plantations between 1500 and 1800 (Martin, 2016; Punnett, 2019). Imported and deposited throughout the Upper Antilles and Lower Antilles, diverse West African enslaved peoples were forced to work on sugar cane plantations, the largest crop export during that period. They produced rice, coffee, tobacco, and other exported crops to drive Europe's industrialization (Martin, 2016; Yelvington, 2000). They were forced to divorce their native language, culture, and religion to adopt the language, culture, and theology of their masters. Any enslaved person who refused to conform to their masters would be put to death (Martin, 2016). Slavery began its decline throughout the Caribbean, beginning with the Haitian revolution of 1791 until its final stronghold in Cuba concluded in 1886 (Martin, 2016; Yelvington, 2000). The importation of indentured servants included East Asians, Chinese, Javanese, and Middle Easterners, all serving the European masters. The intermingling of the ethnicities has etched their mark on the other and, over three centuries, formed a dynamic and distinctive Caribbean culture that continues to evolve today (Punnett, 2019; Yelvington, 2000).

Cultural Background

The introduction of race to the Caribbean and the world, for that matter, was due to the slave trade (Martin, 2016; Morgan, 2004; Yelvington, 2000). The distinction was made to create and ensure a social order that, by birth, defined Africans as enslaved people while preventing Europeans from slavery (Martin, 2016; Morgan, 2004; Yelvington, 2000). The creation of racial distinctions led to the physical and psychological degradation of Africans in the Caribbean, perpetuating a class system that persists even today (Martin, 2016; Yelvington, 2000). Without a doubt, the influx of additional races created the inevitable condition for the Caribbean's

creolization, a form of rebellious assimilation to colonization with the attributes of their motherland. As a form of rebellion for Europeans, creolization could be viewed as taking back what was taken from the enslaved people (their cultural identity) and accepting indentures inserted into the Caribbean. Creolization in itself is a complex fusion of the aspects of the races in the Caribbean. It includes language, religion, and social stratification among the people of the Caribbean (Martin, 2016; Yelvington, 2000).

Though distinct from European culture, creolization also encourages a social order reminiscent of the social constructs created over 300 years ago through slavery. Throughout the Caribbean, people who appear darker in complexion are viewed as a lower class than those with lighter appearances (Punnett, 2019; Yelvington, 2000). Within the Caribbean, languages of colonization, such as English, French, Spanish, and Dutch, are official spoken languages. At the same time, the local lingua franca is spoken in relaxed environments that combine various African language structures with the official languages of the Caribbean. Indeed, the mixing or creolizing of the official language can be viewed as a form of resistance and preservation of their heritage (De Feyter & Winsler, 2009). The bi-dialect, bilingualism, multilingualism, and monolingualism found throughout the islands facilitate upholding the quasi-social class system centered on language (Yelvington, 2000).

Equally important to the people of the Caribbean are their religious beliefs. While Christianity is mainstream, evidence of West African and other African customs can be found among the people's spiritual practices. For example, in Haiti, Voodoo is practiced; in the Dominican Republic, Santeria is performed; in Guyana, Obeah is followed; in Jamaica, Rastafarianism is observed (Punnett, 2019). Though not mainstream, these practices, too, demonstrate a form of protest against the theology of European mainstream religion and an

upholding of the spiritual heritage of their culture. FGCUs will be exposed to those cultural experiences directly if they are international students or indirectly if they are residents of the United States, and so, creolization frames the cultural constructs of FGCUs, in which language and religion illustrate the multi-layered elements encompassing their dynamic heritage, which informs their education (Ogbu & Simons, 1998; Taylor & Chatters, 2010). With such marked distinction in cultural attributes between FGCUs and African American students, more directed efforts should be made to help support FGCUs' transition into higher education in the United States. Institutions and educators acknowledging the distinctions through programming create positive social and academic experiences for FGCUs.

Acculturation

For all the reasons mentioned above, immigrating to America for FGCUs has its share of challenges, though there are also rewards. Students must navigate all the variables that pose challenges before reaping any reward. An effective way to analyze an immigrant's overarching acculturation as they exit their native country to a host country is through the acculturation model of Berry (1997). Several researchers have used Berry's (1990) model on international students' attitudes and behaviors regarding acculturation (Arthur, 2016; de Araujo, 2011). In Berry's (1997) model, immigrants can choose how to deal with the host country's culture; however, their behavior is not an all-inclusive acceptance or rejection and happens over time, and four types of behavioral outcomes can occur in an immigrant. The first is assimilation by blending into the host culture and rejecting the home culture. The second is integration by adopting the host culture while sustaining the home culture. The third is separation by rejecting the host culture and retaining the home culture. The fourth is marginalization by rejecting the host culture but feeling a sense of loss of the home culture (Berry, 1997). Those behavioral

outcomes stem from two acculturation attitude options: a person's choice to adopt or reject the host culture or keep or reject their home culture (Worthy et al., 2020).

When adjusting to a host country, FGCUs deal with psychological, sociocultural, and economic factors (Berry, 1990). Much like the heritage of the Caribbean student, acculturation is complicated and complex. Cultural identity, satisfaction, mental health, belonging, sociocultural fit, navigating daily life, school, and employment are congruent in acculturation (Berry, 1990, 1997; Schreiner, 2016; Ward & Kennedy, 1999). Racial identity and its implications within the constructs of higher education in America impact FGCUs because they do not view racial identity as American society does. In higher education, they are often misplaced and grouped with African-American students regarding race. Their race experience in their home country differs from that of African American students as racial identity in their home country is less biased (Mwangi & English, 2017; Mwangi et al., 2021; Punnett, 2019). There have been studies that show racial biases and racial microaggression toward African American and Afro-Caribbean students, which has negative acculturation impacts on their social and academic integration (Mwangi & English, 2017; Mwangi et al., 2021; Taylor et al., 2019; Waters, 1994). More attention is required to nurture and ensure positive experiences for assimilation or integration, which ultimately influence their social and academic integration.

Social Belonging

First-generation college students struggle in many ways to connect with their institutions for all the reasons mentioned and more. However, one must consider additional societal constructs, which stigmatize FGCUs as the working class and suggest their sole purpose in attending school is for utility rather than intellectual inquiry (McCallen & Johnson, 2020). This biased view of FGCUs puts them at an unfair advantage over their peers (Ives & Castillo-

Montoya, 2020). Their lack of knowledge of collegiate social norms makes them more susceptible to experiencing greater social estrangement in higher education (Garriott & Nisle, 2018; Green & Wright, 2017; McCallen & Johnson, 2020; Pratt et al., 2019). Besides being culturally alienated, Black immigrant students are frustrated and feel out of touch at predominantly white institutions and feel they do not make enough effort to keep them culturally engaged (Griffin et al., 2016). Institutions' staff must be sensitive to these factors to critically shape academic and co-curricular experiences to assist FGCUs' institutional engagement.

Social Support

When young people suffer from stressors, such as depression and anxiety, during their collegiate journey, social support systems are critical to their social and emotional success (Bantjes et al., 2023; Meeks et al., 2023). The need to connect to others is a basic human tendency and desire that most people feel and support our mental and physical fitness (Baumeister & Leary, 1995; Bolger et al., 2000). Finding connections for FGCUs is critical for many as they navigate a new country and higher education to stay connected to an institution. Deci and Ryan (1985) promoted autonomy and self-efficacy as the leading reasons for accomplishment. Scholars have built on and expanded educational achievement through the self-efficacy premise (Borman et al., 2016, 2018; Ferrer & Cohen, 2018). Many of those studies do not necessarily fit the needs to support FGCUs' demographics. Minority students face the challenges of race, social fit, and cultural intelligence, impacting their academic achievement (Walton & Cohen, 2007). Their potential challenges are more complex and nuanced for many reasons mentioned previously. In a study by Walton and Cohen (2007), Black students were likelier to look for social connections. When placed in a stressful situation, they questioned their social and academic aptitude for college more than their white counterparts. FGCUs have

different stressors than that of African American students. However, the test demonstrated that stressful situations did make African-American students doubt their academic ability and social fitness for higher education. Because there are not many social and emotional distinctions between African American and Afro-Caribbean students in higher education, it is likely that if FGCUs were placed in a similar situation, they might respond similarly.

Additionally, their level of self-doubt, which informs their educational choices, is based on multiple factors, including their cross-cultural transition (Arthur, 2016; Bethel et al., 2020), cultural background, socioeconomics, and race (Mwangi & English, 2017; Mwangi et al., 2021). Still, one of the behavioral outcomes will present itself based on the student's stress level and support that impacts their connection to a campus community. Institutions that actively create programming to facilitate learning with students help strengthen their academic achievements (Tinto, 1973; Walton & Cohen, 2007). Those students feel more connected to the larger campus community.

Socioeconomics

Student debt has captured the nation's attention and is about 1.774 trillion dollars (Hanson, 2023), exceeding the nation's credit card debt (Federal Reserve Bank, 2023). The tuition price impacts FGCUs as they and their families often lack funds to support their educational endeavors fully. Many FGCUs attend city and state institutions to pursue higher education, as these institutions are more financially attainable (McCallen & Johnson, 2020). However, FGCUs still rely on aid from the government to supplement tuition. The financial status of families and the socioeconomic status of FGCUs have rippling effects on how they engage socially and academically in their education.

Income and Wealth

Many first-generation college students come from low socioeconomic backgrounds and must burden themselves with working while attending school (Garriott & Nisle, 2018; McCallen & Johnson, 2020; Pratt et al., 2019). Working while attending school removes more opportunities for FGCUs to interact with campus stakeholders, which would be a resource to help better navigate college life. The stress of maintaining a job and managing good grades sometimes overwhelms their retention (Garriott & Nisle, 2018; Green & Wright, 2017; Pratt et al., 2019). The balance that is often necessary to maintain a strong grade point average (GPA) that would allow achieving academic scholarships to alleviate the financial need to attend college is unmet primarily because of the pressure to maintain a job (Mcdossi et al., 2022). This disturbance puts them at a disadvantage, hindering their advancement.

Impact of Student Debt on the Low-Income Family

Beyond working while attending school, some FGCUs may qualify for student aid such as the Tuition Assistance Program (TAP), Basic educational opportunity grant (PELL), or student loans to help fund their education. The allocation of Federal student aid is based on the idea that parents of students would help supplement tuition payments, and only low-income students would need support (Rab-Goldrick & Steinbaum, 2020). Over the past two decades, the cost of attending a public four-year college has risen by 179.2%, translating to an average annual increase of 9.0% (Hanson, 2023). In the past four decades, the cost of attending public and private four-year institutions has risen considerably, even after accounting for inflation. Tuition and fees have increased by 380% at public institutions and 308% at private institutions (Hanson, 2023). Wage increases have stagnated and hold the same purchasing power as they did 40 years ago (DiSilver, 2018). Due to this, numerous students from ethnic minorities face the challenge of

taking out bigger loans to cover their academic expenses and fundamentals like housing, food, and transportation (Geiman & Taylor, 2022; Kahn et al., 2019). The Institute for College Access and Success (TICAS) published a report in 2019 that revealed 85% of Black college graduates had student loan debt, while only 69% of White graduates did (Schak et al., 2019). Additionally, the report uncovered that, on average, Black graduates owed higher amounts in student loans.

Parents, directly and indirectly, affect a student's choice to seek higher education and how a student handles their debt (Fan & Chatterjee, 2017, 2019; Houle & Warner, 2017; Kahn et al., 2019). Financially stable parents with additional capital tend to invest more in their children's education. Their income is a source their children can use to avoid student debt, and many urge their children to pursue a college degree (Kahn et al., 2019). Learners in this scenario benefit from merit aid geared to students with high academic averages and socioeconomic backgrounds (Houle, 2014). Most students who learn financial acumen from their parents' financial socialization are more likely to handle their finances better (White et al., 2021), avoiding defaulting on their student loans. This scenario is not always a reality for FGCUs as many of their parents are in low-paying jobs and do not necessarily have solid financial insight that can be passed on to their children.

Race Impact of Student Debt

While there are middle-income circumstances for White and Black families, frequently, FGCUs are placed into the Black-race family category, which impacts the amount of student debt incurred. Discrimination in labor markets, college, and credit continues to compound Black students' challenges in repaying their loans. Frequently, Black students take out personal loans that yield a higher percentage than federal loans, further intensifying their debt (Houle & Warner, 2017; Rab-Goldrick & Steinbaum, 2020). This condition burdens Black families,

disproportionately preventing their students from achieving middle-income levels compared to White families (Geiman & Taylor, 2022; Kahn et al., 2019).

Discrimination in the labor market and confronting a market in an economic downturn, FGCUs delay starting their lives as independent adults. After graduating, some students must return to their parents' homes because rents are too high with their student debt; graduates may have to defer getting married and paying for a wedding as partners hesitate to consolidate high debt (Velez et al., 2019). Additionally, graduates are not necessarily in a good financial position many years later and may have to delay purchasing a home (Mountain et al., 2020; Tanzi, 2019).

Students who graduate with high debt tend to work more and are unhappy with their jobs (Velez et al., 2019). They focus more on paying their bills, impeding the work-life balance that students with debt must face after graduation. After graduation, many students are looking for work, are happy to be employed, and do not necessarily get into their field of study. Most prioritize finding work to start paying off student loans, as they must make payments six months after graduation. For FGCUs, finding a job after graduation is done with a sense of urgency, and they choose the first offer they receive, which is not always the best paying, thus keeping them in low-income circumstances.

Digital Divide

To understand and confront the information ecosystem's inequalities for FGCUs, reviewing its hubristic underpinnings hinged on biases of exclusivity, prejudice, ableism, and chauvinism is paramount (Heffernan, 2020). Information literacy is multifacetedly entrenched with power and privilege structures (Heffernan, 2020) regarding access at its core. Digital access has social justice implications that force examining access, creation and need with the

underpinnings of privilege, profit, and power (Heffernan, 2020). The historical background of FGCUs is marked by social justice inequalities embedded in privilege, profit, and power.

Mihelj et al. (2019) framed the digital divide in three levels. To relate the digital divide to FGCUs, the first and second levels of the divide will be explored. FGCUs come from countries that are still developing and lack total exposure to the advancements within the digital world, though they all are aware of the Internet. In the first level of the digital divide, socioeconomic status is critical because of access or inability to retrieve technology, including software and hardware (Nogueron-Liu, 2017). Students from the Caribbean are confronted with those two challenges. The governments do not necessarily support advancing software and hardware for all citizens. The student is left without if the family is not able to purchase access to software and hardware. However, 2.8 billion Facebook users demonstrate that the first level of the digital divide is shifting out of focus, giving more assessment to the second level of the divide.

The second level of the divide examines how different socioeconomic groups use technology. Companies like Facebook have leveled the technological playing field by giving accessible internet data services to developing countries (Advox, 2018). Even though these countries have access to the Internet, they are not utilizing it in the same manner that others from a higher socioeconomic status would. Therefore, access may not create today's digital inequities; instead, the digital divide is being upheld by what is accessed by different socioeconomic groups (Mihelj et al., 2019). Even though people from lower socioeconomic backgrounds have access to technology, they are not using it to retrieve things that would enhance or change their social status, thus maintaining their lower socioeconomic positions.

The rapidly evolving technological landscape constantly competes and fills the market with new devices, not all created equally with the same functionality. To further compound the

divide, some are better than others and will ultimately impact Internet use (van Dijk, 2019).

Giving students educational devices such as iPads when they begin their academic journey will

mitigate the challenges FGCUs face with access to hardware. Interfacing the institution's

learning management system (LMS) with the device to get access to their educational content

will eliminate their difficulties with access to software, thereby leveling the digital divide to a

large degree.

Academic Performance

Academic performance is an area that many FGCUs struggle with when entering higher

education, and they may need remediation courses and access to tutoring and support services

(Garriott & Nisle, 2018; Green & Wright, 2017). Often, college readiness is not achieved in high

school because they are disproportionately less likely to participate in advanced placement

classes (Garriott & Nisle, 2018). Studies demonstrate that FGCUs are more engaged during

group learning communities and mentorship programs (Garriott & Nisle, 2018; Green & Wright,

2017; Holt & Winter, 2018).

First-generation students who interact and study within peer groups achieve better

academic success and deepen their social integration within the institution (Fjelkner-Pihl, 2021;

Holt & Winter, 2018). Creating connections beyond the classroom with peers is another way to

establish a sense of community for FGCUs. It motivates FGCUs to stay connected to their peers

through networks and gives them a sense of accountability to seek academic support (Fjelkner-

Pihl, 2021; Holt & Winter, 2018).

Academic Support

A study done by McCallen and Johnson (2020) pointed out that faculty who engage with

students are the most influential in their academic progress. Faculty were seen as agents of

intellectual and emotional support that facilitated pathways to achieve positive campus experiences. This finding supports the idea that faculty play a critical role in creating positive reinforcements for students to promote positive outcomes for first-generation students (Soria & Stebleton, 2012). As key ambassadors of higher education institutions (HEIs), faculty should continue to support and facilitate FGCUs by acquiring knowledge about their cultural background to customize learnings that engage them to promote social and academic integration outcomes.

Educators' Academic Freedom

Numerous methods within institutions have remained the same as treasured tenants of the past. Young faculty are often afraid to question anything about pedagogical practices employed by an institution for fear of stymying their career advancement. In 1967, the U.S. Supreme Court dignified academic freedom as a transcendent value protected under the law, making it ubiquitous and conjectural in Keyishian v. Board of Regents (Friedman, 2011). Still, one can find many claims under the guise of academic freedom for pedagogy to remain the same and not employ advancements and as many innovations when given the opportunity (Christensen & Knezek, 2017; De Groof, 2018).

Academic freedom includes many considerations for various constituents at an institution. It is concerned with seeking a deeper understanding of subject matters through intellectual engagements in their authentic nature. Its core principles are logic, judgment, consideration, debate, reflection, and contemplation, devoid of fear of suppression or censorship (Davids, 2021; De Groof, 2018). Academic freedom is decisive in higher education, and institutional independence is a precondition to enjoying complete academic freedom (De Groof, 2018).

Innovative technological advancements are pushing faculty to evolve and adapt pedagogy that aligns with the needs of 21st-century students (Crompton et al., 2020; Eli, 2021). Employing creative pedagogy such as active learning in STEM creates an active technological learning environment that fosters opportunities for social and academic integration through shared experiences between students integrating all levels of cognition that profoundly impact students beyond the traditional classroom experience (Lombardi & Shipley, 2021; Shi et al., 2019; Talukder, 2020). STEM programs significantly lack representation of minority students, which can result in high attrition rates. Active learning techniques can be a helpful way to address this issue (Catterall, 2017; Kovarik et al., 2022; Lombardi & Shipley, 2021). Active learning pedagogy creates activities that form a deeper connection to the institution, and students also engage in collaborative skills that are transferable to the workplace. At a minimum, most college and university students are urged to use the institution's learning management system, whether to view a syllabus, retrieve notes, participate in class discussions, take tests, or read a required text. Students in that situation rely more on self-efficacy to get the best results out of the learning experience (Anthonysamy et al., 2021). This task allows students to scaffold information from previous experience and build new knowledge. It is worth exploring on campuses to help FGCUs develop and advance technical skills.

Teaching Techniques

Project-based learning (PBL) is a student-centric pedagogy encompassing dynamic classroom methodology to engage students' learning, problem-based learning is student-centered but more focused on a subject matter. The problem opens the learning process with a real-life amorphous issue (Tan, 2021) offered to the student to approach and solve uniquely. PBL challenges students in an educational framework that obliges higher-order cognition (Sonedi,

2021). Besides resolving issues, it bolsters students' self-efficacy, interdisciplinary learning, collaboration, information mining, and communications, all transferrable skills in daily living. The learning process is a richer experience for students because "they think training is more relevant to their future professional life" (Moust et al., 2021, p. 16).

Project-based learning can take on many shapes in the classroom, with projects that range from math, in the case of students learning the importance of the trajectory of angles when landing a plane (International Society for Technology in Education, 2023a) to creating 4D prototypes for clinical design (International Society for Technology in Education, 2023b). One of the most potent elements in PBL is the partnership between teacher and student. Using innovative teaching techniques aims to enhance the interaction between teachers and students, transforming the teaching process into a memorable learning experience. This approach engages students in and outside the classroom (Eli, 2021). The teacher facilitates the learning for the students by giving them opportunities to utilize technology in a meaningful way that will lead to student creativity to express themselves through their learning and inquiry, leading to generalization and adaptability to the real world. This educator-student partnership will help create and drive stronger connections to an institution for FGCUs. It facilitates their authentic voices within their educational process, allowing them to draw from their own experiences to problem solve, a transferable skill that can be utilized as they navigate facets of their lives.

Curriculum Resource Availability

The educational climate regarding the use of technology within the classroom is in flux. Educators have a shared perception that technology should be implemented at schools to educate 21st-century students (Alenezi, 2016). There are many instances where a pedagogy of technology infuses the curriculum to enhance student's educational experience across America.

However, more challenges have surfaced in recent years that prevent educators from embracing technology entirely. Hartman et al. (2019) noted that 78% of students between ages 14 – 23 think teachers add value to the classroom experience; however, only 39% would prefer traditional teacher-led education. Today, students create content on digital platforms and spend excessive time in the digital world, preferring videos to get their information (Talmon, 2019). Statistics indicate students' desire to utilize technology for their educational journey, yet their requests are not consistently met. Institutions still face challenges incorporating technology into educational pedagogy because there is a lack of infrastructure and technical support. In addition, many educators have different philosophies on connectivism and constructivist learning that do not fit with a technological modality, and some believe there is a high risk in utilizing technology for the learning experience (Alenezi, 2016).

Educators must become more student-centric by proactively seeking the necessary professional development required to move beyond the hardware and software challenges and engage with technology to meet the educational needs of their students. More frequent professional development may address many logistical hurdles preventing the pivot to technology from enhancing students' educational experience. In a study, Porter and Graham (2015) found that educators would incorporate technology into the educational experience if they received pedagogical and technological support from the administration. However, studies have shown a negative correlation to adopting technology interfaces more prevalent among educators with many years of teaching experience (Christensen & Knezek, 2017).

In recent years, COVID-19, concurrently with student demands, has caused institutions to review and reconstruct their education delivery strategies (Ahmed & Opoku, 2022; Bond et al., 2021; Burk-Rafel et al., 2020). Higher education institutions have amplified their use of

technology to deliver education utilizing multiple modes of synchronous methods such as Zoom, Google Classroom, and Microsoft Teams to continue to meet the changing demands of higher education students (Bergen, 2020; Bond et al., 2021). The LMS within an institution is the most common tool for delivering teaching materials and assessments (Bond et al., 2021; Brady & O'Reilly, 2020); students expect faculty to upload educational resources within the LMS (Bond et al., 2021).

Meeting the needs of the dynamic student population has begun to take shape as faculty are creating pathways to learning outside the context of a traditional textbook and are utilizing pedagogical design to create a robust learning experience that enhances student engagement (Burk-Rafel et al., 2020). As digitized educational content expands, more faculty are creating opportunities to integrate this learning material to augment student engagement (D'Ambra et al., 2022; Ozdemir & Hendricks, 2017). A bonus to the innovation of open education resources (OER) and e-textbooks is affordability and access (D'Ambra et al., 2022; Ozdemir & Hendricks, 2017), which gives FGCUs some reprieve from necessary collegiate expenses (Colvard et al., 2018; Valentino & Hopkins, 2020). In a recent study, Valentino and Hopkins (2020) found that utilizing an innovative free OER textbook initiative saved 5,200 students between $360,000 and $600,000 at Central Washington University. Used in a curriculum, OER is more accessible than traditional textbooks and has shown similar or better student outcomes for students, particularly students from lower socioeconomic backgrounds (Colvard et al., 2018; Croteau, 2017). Creating innovative programs such as this impacts academic integration through access. They indirectly affect social integration, allowing FGCUs and all students to spend more time engaging in social activities on campus rather than working to afford school. This program is an example of an

institution attempting to address the hurdles first-generation students face through access and the cost of higher education.

Another access option available to FGCUs is First Day Complete (Barnes & Noble College, n.d.). This program is not free but offers substantial savings to students as they are charged a flat credit rate. For example, if a per-credit rate is twenty dollars, a three-credit class would be sixty dollars. Prices for educational content are expensive, and students are expected to have their content ready to learn from the first day. Many students must wait for financial aid to clear before having enough money to purchase their content. This program allows every student access to their content at a discounted rate two weeks before class begins. The student does not have to pay for the content until after the add/drop date. With this program, every student in class, including FGCUs, would have access to their course materials before the first day. This access levels the playing field for all students and gives each student a fair chance of success.

Interactive Resources

New technologies provide interactive resources for active learning in higher education. Improved learning outcomes can lead to better academic results (Crompton et al., 2020; Kovarik et al., 2022; Malikovna et al., 2022). Although the interpretation of active learning can vary across different fields, it is typically rooted in cognitive-constructivist principles (Piaget, 1926) and social-constructivist principles (Vygotsky, 1978). The most effective way for students to learn is through active learning pedagogy. This approach allows students to actively participate in the learning process and use their prior knowledge to create new insights through hands-on experiences (Crompton et al., 2020; Kovarik et al., 2022; Malikovna et al., 2022). To successfully integrate learning technologies into the classroom, teachers must consider how students perceive, think about, reflect on, and react to these new technologies. Teachers can

promote the best reactions and engagement from their students by thoughtfully considering these factors (Crompton et al., 2020).

Adaptive learning technology is an interactive resource that teachers can use to improve their teaching methods. For example, intelligent tutoring systems (ITS) are created to teach math skills that give precise feedback on enhancing students' learning efficiency in real-time based on cognitive task analysis (Carnegie Learning, n.d.; Crompton et al., 2020). Another interactive tool that can aid active learning is analytics for student success. This resource measures how students utilize educational content provided by educators to facilitate their learning (Crompton et al., 2020; Fischer et al., 2020). Educators can assess a student's potential success and identify at-risk students by evaluating their level of engagement with the learning content they provide. Analytics provide a snapshot to the teacher of how students perform in class, enabling the educator to intervene quickly if a student is struggling. Teachers can choose to upload educational resources to the school's LMS, such as digital textbooks, assessments, and homework assignments. They can also monitor how frequently students are accessing this information. By utilizing this approach, educators can tailor active learning pedagogy to optimize student engagement during class, linked to improved student outcomes and retention (Bernacki, 2017; Crompton et al., 2020; Malikovna et al., 2022).

The teacher facilitates active learning for the students by giving them opportunities to utilize technology meaningfully. For FGCUs, this opens possibilities for creativity and expression that will differ from their peers and allow authentic expression. The learning and inquiry from these experiences offer opportunities for generalization and adaptability to the real world.

Institutional Effectiveness and Accreditation

As more immigrants and FGCUs attend HEIs than ever, institutional effectiveness and accreditation become paramount to ensure HEIs have programming supporting emerging student demographics. Institutional effectiveness in higher education took root in the 1980s as a call to action from national, regional, and local accrediting associations due to alarmingly low national standardized test scores (Ewell et al., 2008; Moore, 1986). Over the years, higher education has evolved. Today, institutional effectiveness (IE) is an all-encompassing process whereby institutions engage in ongoing self-evaluation to determine achievements and outcomes related to the institution's mission (Texas Tech University, n.d.). All factors assessed in IE should demonstrate how it upholds its strategic mission. Critical to the success of IE is a thorough awareness and commitment to execution, engaging all internal and external stakeholders concerning the institution's strategic mission. Besides facilitating learning, HEIs must also consider creating synergies utilizing an integrated plan (Young & Baker, 2016) between financial services to ensure students receive the necessary aid to maximize learning (Banta et al., 2015), which encompasses academic affairs, student services, information technology, communication and development, campus planning to create a campus culture that holistically supports students' success are all integral to IE. Titov and Tuulik (2013) posited that HEIs are complex, multifaceted organizations that lack unanimity on the definition of quality, as it means something different for each stakeholder. This dilemma is assuaged through accrediting bodies defining quality within HEI constructs.

Accreditation is employed to gauge quality at HEIs and helps to avert disengagement among internal and external stakeholders. Ensuring all stakeholders see the value in supporting programming that supports different student demographics will strengthen the institution and

benefit the students attending. According to Head and Johnson (2011), there are two types of accreditations; the first, institutional or regional accreditation, is concerned with evaluating the entire institutional entity to recognize how much each unit within the organizational structure complements each other. The second, programmatic accreditation, is concerned with assessing the pedagogical elements of a program. HEIs considering FGCUs in institutional and programmatic accreditation will help support their social and academic integration within HEIs.

Effectiveness and Accreditation

One could identify institutional effectiveness as the methods that dovetail the institution's mission, vision, and core values through direct and indirect assessment tools that reveal each unit's reflections in the other to support student success. In other words, IE should illustrate that the sum is no greater than its parts. Still, each piece is necessary for HEIs to achieve their ultimate mission, where every program, system, and stakeholder works together to support the institution effectively. For example, student retention, matriculation, and graduation are key performance indicators that determine the level of IE within HEIs. The Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) encourages HEIs to be grounded in assessments (Southern Association of Colleges and Schools Commission on Colleges, n.d.). In its *Principles of Accreditation Manual*, section seven states, "The institution engages in ongoing, comprehensive, and integrated research-based planning and evaluation processes that (a) focus on institutional quality and effectiveness and (b) incorporate a systematic review of institutional goals and outcomes consistent with its mission" (Southern Association of Colleges and Schools Commission on Colleges, n.d., p. 19). This accrediting body suggests that the path to IE is through the overarching evaluation process of the institution, which involves the institution's mission, vision, and core values. The HEIs that consistently evaluate every aspect of their

institution and make changes to accommodate the needs of the changing student demographic, including FGCUs and other immigrants, demonstrate the benefits of accreditation.

Maintaining Accreditation

Direct and indirect assessments are the most crucial planning and evaluation process for attaining continuous improvement within HEIs, leading to accreditation. They serve many purposes and are rich with data to help stakeholders understand how they are doing and allow the opportunity to make necessary adjustments for institutional improvements. For example, getting feedback on topics that address various constituents helps shape the direction of decision-making and gives a voice to campus constituents to keep them engaged. Institutions that issue surveys about campus dining, hours of academic advisement, or the type of course offerings for a particular cohort are examples of feedback that help drive improvements within HEIs. These matters will affect the student's experience at an institution and its mission, vision, and core values. Maintaining accreditation through a strategic plan that aligns with the recommendations of the institution's accrediting body utilizing the timelines they prescribed for accreditation and reaffirmation will help to keep good standing with the accrediting body.

Local/National Assessments

Through meta-assessments, HEIs evaluate tools to sustain a culture of improvements utilizing direct and indirect assessments (Pham, 2020). Besides extending accreditation to an institution, direct, indirect, national, and local assessments offer insights that can improve the quality of education and student experience given at HEIs to inform them on efficient programming and programs that need to be adjusted. In other words, assessments inform action (Banta et al., 2015; Walvoord, 2004). For example, local direct classroom assessments are small samples that measure how well a concept is understood, which can be used to direct pedagogy

employed by faculty (Merhout et al., 2008). In contrast, national indirect assessments have a larger sample size that infers student abilities through surveys, focus groups, external interviews, and exit interviews (Skidmore College, n.d.). For example, the Student Satisfaction Inventory (SSI) is a national indirect assessment that informs Liberty University of its students' contentment level and is used to improve its program offerings (Liberty University, 2023); another survey is the National Survey for Student Engagement (NSSE). A random sample to yield significant participation at Liberty University every three years helps inform the institution how engaged students are in the campus community (Liberty University, 2023). According to Fuller and Skidmore (2014), the number of respondents to an indirect assessment at HEIs can be considered a measure of direct assessment that serves as a self-evaluation tool to reflect on their culture of assessments decisively.

Assessments

Co-curricular assessments within the academy are necessary for a school's overall function and serve many purposes. Assessments allow campus leadership to collect data through indirect methods that support direct assessments towards general program enhancements that may offer critical support to FGCUs. Many of the schools' non-academic services complement the institution's academic mission, which addresses the students' overall collegiate experience and considers the campus needs. Student affairs will play a significant role in all co-curricular services offered on campus for FGCUs and usually work directly with institutional researchers to enhance the quality of education and services at an institution. All factors assessed in the FGCUs' programs should demonstrate how they uphold the institution's strategic mission and support FGCUs. Besides facilitating learning, HEIs must also consider creating synergies utilizing an integrated plan (Young & Baker, 2016) between financial services to ensure students

receive the necessary aid to maximize learning (Banta et al., 2015), academic affairs, student

services, information technology, communication and development, campus planning to create a

campus culture that holistically supports FGCUs.

The best practices of Chickering et al. (1987) for student success remain relevant today.

They are (a) encourage contact between students and faculty; (b) develop reciprocity and

cooperation among students; (c) use active learning techniques; (d) give prompt feedback; (e)

emphasize time on task; (f) communicate high expectations; and (g) respects diverse talents and

ways of learning. Assessments can measure suggested improvements to keep institutions focused

on student needs. A partnership between student affairs and institutional research allows data

collection to analyze a unit's effectiveness and improve department functions, student learning,

and institutional performance (Meents-DeCaigny & Sanders, 2015). These programs should

consider FGCUs as more immigrant populations are seeking higher education. For example,

student advisor counselors help students navigate course selection to ensure they move through

their program requirements. By assisting students in choosing their courses, as students are not

necessarily aware of the appropriate sequence of courses, an advisor diminishes the chance of a

student making an error in course selection, thereby creating efficiency. The counselors also

positively improve the institution's effectiveness because successful program planning impacts

retention, matriculation, and graduation. The service provided by the student advisor directly

relates to the National Survey of Student Engagement. Through a self-reporting tool, this indirect

assessment method offers institutional research insights on co-curricular program involvement,

academic challenges, and other student-related elements (Meents-DeCaigny & Sanders, 2015),

which will help further gauge the effectiveness of programs considering FGCUs. Locally,

stakeholders can examine results from the service to justify the resources used or needed to

support, maintain, and or expand the program. In other words, a review of the services allows for adjustments and improvement.

Assessments Results

Assessment results are beneficial to HEIs as they reflect the institution's journey on the road toward inclusive quality education. Direct and indirect national assessments should be stored and used as benchmarks for HEIs to ensure progression. Assessments such as the SSI and NSSE should be reviewed by campus leadership to certify relevant and timely programming for students related to student outcomes reflected in an institution's educational mission. Local indirect and direct assessments should be published to encourage market competition and keep HEIs striving to attract the best students. Ultimately, this strategy will elevate HEIs and demonstrate inclusivity for American students, FGCUs, and other immigrant populations to prepare them for the competitive global market.

<div align="center">

Summary

</div>

Student retention has challenged institutions (Wu et al., 2019). Higher education institutions are attempting innovative ways to ensure student engagement to mitigate first-generation attrition through faculty academic freedom to incorporate innovative pedagogical experiences. Further study has examined the soundness of innovative pedagogy relating to content delivery through Tinto's (1975) theory of dropout and theory of institutional departure. The literature review of social and academic integration (Tinto, 1975) and their holistic personal and collegiate experiences assisted in shaping the insight of first-generation attrition. A gap in the literature on the distribution practices of educational content relating to first-generation undergraduate student retention demonstrates a practical need for research. However, there have been many studies on first-generation students (Abdul-Rahaman et al., 2022; McCallen &

Johnson, 2020; McCulloh, 2022), and few innovative programs curriculum resource availabilities relating to content delivery corresponding to first-generation students to bolster retention. Studying social and academic integration through creative pedagogy that supports curriculum resource availability demonstrates a new pathway for student persistence through innovation. This study adds to the literature because it analyzes innovative student programs created by institutions that support student success through academic achievement and social integration.

CHAPTER THREE: METHODS

Overview

The purpose of this intrinsic case study was to understand how innovation across social and academic integration among FGCUs supports persistence at a public urban university in northeast New Jersey. The subsections in this chapter expand on the research, the central question foundational to the study, the setting, and the participants. The procedures for the study are defined in addition to the description of how the data is collected and analyzed. In its conclusion, the chapter addresses trustworthiness and ethical consideration, providing transparency regarding the conduct of the research.

Research Design

Qualitative research was the most appropriate method for this study as it is best suited to answer the research questions. It captures the comprehensive experiences and perceptions of the participants' social and academic integration through innovation and how those elements affect the participants related to their retention. Analyzing the problem through a case study reflects further than the micro-level relatability of the variables. It concentrates on the essence of the case and its macro-level relatability to the world (Yin, 2018) to demonstrate its transferability. A case study is a preferred qualitative research method for understanding the essence of a real-world phenomenon. The phenomenon can and may extend over time; therefore, choosing multiple relevant data types for the study is recommended (Yin, 2018). In other words, a bounded intrinsic single case study allows the capture of the relationships and nuances of innovative academic program delivery phenomena related to FGCUs social and academic integration within an institution that may appear ambiguous through a quantitative study.

Furthermore, Yin (2002, 2018), a prominent methodologist who expounded on case studies and whose seminal work provides guidance for conducting case study research, recommended that the quality of the research design can only be measured by construct validity, internal validity, external validity, and reliability. The design methodology employed by Yin (2002, 2018) was utilized to demonstrate the path from the central research question that connects the empirical data from the study in a logical sequence that follows through to its conclusion. In this case, the unique features of educational content delivery methods make it ideal for researching its features relating to social and academic integration through innovation and how those elements affect FGCUs' retention. While generalization is not the apparent intent of a case study, generalizations will be drawn during the study through events, subjects, and replies that will lead to an advanced understanding of the research (Saldaña, 2015).

Research Questions

The purpose of this intrinsic case study was to understand how innovation across social and academic integration among FGCUs supports persistence at a public urban university in northeast New Jersey. Analyzing the efficacy of innovative academic content delivery through social and academic integration programs for FGCUs helps fill the gap in the current literature. The central research questions and sub-questions that follow helped direct the research.

Central Research Question

How has innovative academic content delivery affected the retention of FGCUs?

Sub-Question One

How does exposure to innovative academic content delivery influence the educational expectations of FGCUs?

Sub-Question Two

How have the educational aspirations of FGCUs changed since engaging with innovative academic content delivery?

Sub-Question Three

How have the experiences with innovative academic content delivery influenced the educational motivation of FGCUs?

Setting and Participants

The intrinsic case study helped the researcher with investigating a single bounded case at a public urban university in northeast New Jersey. As multiple locations were used for recruitment, the pseudonym Urban Public University (UPU) was to refer to the original location, university, and participants. Due to complications with the UPU's Individual Review Board, circumstances changed, and students were recruited from three Northeast universities. Recruitment was completed through the community with flyers in local businesses, and individual site permission was no longer warranted. A copy of the Liberty University Internal Review Board amendment is in Appendix G. The bustling transient neighborhood is close to a major highway with convenient subway and buses. The area is experiencing a revival as numerous developers have started constructing rental homes and buildings.

Site

The neighborhood is located within a large urban city in the Northeast. The area is known for its dense Caribbean population, with people from all over the Caribbean settling there. The population has made the area an attraction for food and culture in neighboring boroughs. With 15 HEIs within a 12-mile radius of the local businesses where the flyers were hung, recruitment of

participants was possible from three universities. The neighborhood was an ideal site for recruiting due to its demographics, which aligned with the purpose of this study.

Participants

The researcher used purposeful sampling, as specific participants were recruited (Creswell & Poth, 2018)**.** The researcher recruited participants aged 18-29, with email being the primary mode of communication. Most college students have access to high-speed internet through their institutions (Larson et al., 2011). The students' ethnicity was Black or Latino, and they were commuters and dorm residents. FGCUs from any Caribbean island, including Guyana, located in South America, and adopted into the Caribbean were sought out for the study. A questionnaire was emailed to the interested students who contacted me in order to qualify them to participate in the study (see Appendix D). The information gathered from the participants was analyzed from an interpretive viewpoint to allow participants to share their perspectives that may challenge any hypotheses made at the beginning of the study (Yin, 2018).

Recruitment Plan

In the original recruitment plan, I planned to send a questionnaire with my contact information to the on-campus Caribbean Student Association (CSA) at UPU to identify 12 to 15 participants for the study between the ages of 18 and 22. An email from CSA's offices was planned to be sent to FGCUs, who would agree to participate in the study. The email detailed the full scope of the study, methods in place for participants' anonymity, the voluntary nature of participation, and the participant's role (Creswell & Poth, 2018; Spellecy & Busse, 2021).

However, due to the UPU's IRB complications, I changed my recruitment plan and posted recruitment flyers in local businesses near three Northeast universities. As purposeful sampling can augment and generate perceptions that enhance the quality of the study (Patton,

1990), approximately 12 to 15 participants were needed to achieve saturation where no new knowledge could be collected (Lincoln & Guba, 1985). All interested participants were required to consent to the study and be allowed to preview the research process before the study commenced. The questionnaire is placed in Appendix D. A copy of the email was placed in Appendix E. A copy of the consent form was placed in Appendix F.

<div align="center">**Researcher's Positionality**</div>

This qualitative case study was chosen because of my experiences navigating higher education as a first-generation Caribbean undergraduate. I approached the research from a place of familiarity and sought to understand the educational experiences holistically of FGCUs. Working on the periphery of higher education for over 15 years, consulting with administrators, faculty, and students has allowed me to see higher education through many lenses. As a first-generation Caribbean undergraduate and higher education consultant, I brought a unique perspective to the direction of the study that allowed me to expand the current literature to enhance awareness in the educational community on how innovation across social and academic integration for FGCUs supports persistence.

Interpretive Framework

The constructivism paradigm is the interpretive framework on which the study rests. Engaging with and observing participants helped enable me to interpret their experiences and contribute to a shared understanding, ultimately allowing for a thorough study description (Creswell & Poth, 2018; Lincoln &Guba, 1985). Spending time on campus gives valuable insight into their on-campus collegiate experiences. Through observation, interactions, and keen listening, participants expressed their experiences and perceptions of the phenomenon as it relates to their individuality and worldview. The phenomenon's essence was captured by

inductively interpreting the participant's experiences (Creswell & Poth, 2018; Merriam, 1998). I collected, analyzed, and interpreted participants' experiences to identify a pattern of meaning that points to the study's foundational theory (Creswell & Poth, 2018; Yin, 2018).

Philosophical Assumptions

My philosophical assumptions directly influenced this research study, and my perspective was necessary for defining the rationale on which the study rests (Creswell & Poth, 2018). These viewpoints were essential in determining the rationale on which the study rests. An ontological assumption refers to the researcher's view of reality. An epistemological assumption refers to how the researcher knows reality. An axiological assumption is a value that guides the research (Creswell & Poth, 2018).

Ontological Assumption

Synonymous with the constructivist paradigm is an ontological assumption as the researcher is responsible for describing and interpreting the different perspectives of participants in the case study (Creswell & Poth, 2018; Yin, 2018). I believe there is only one reality under God, and He has blessed us with different views to demonstrate a unity of our differences. Those differences should only be understood as variations, not other realities. As a researcher, it is my ethical duty to tell the story of the participants and accept the data gathered in the findings that lead to the phenomenon's essence (Yin, 2018).

Epistemological Assumption

A researcher's epistemological assumption is to get insight or gain a concrete understanding or knowledge by gathering subjective evidence based on participants' views (Creswell & Poth, 2018). Conducting interviews in the participants' natural environment is critical for the authenticity of the study and commonality shaped by personal experiences (Yin,

2018). I gained access to the participants before the study to build a rapport by demonstrating respect for their experiences and opinions (Creswell & Poth, 2018). I held Zoom calls to share information with the participants about the study and what I hoped to accomplish two weeks before the study began. I encouraged them to ask questions and or share any concerns. Spending time with participants in their natural environment to capture details that increase awareness and more in-depth knowledge is essential to a case study (Yin, 2018).

Axiological Assumption

As an individual who has been a first-generation Caribbean undergraduate and has worked in the higher education industry for over 15 years, it is vital for me to be aware that my views and biases from an axiological assumption can influence the study (Creswell & Poth, 2018). I was confident in upholding the experiences of participants as they are meant to be preserved under one reality guided by God. Acknowledging biases helps the study by allowing the researcher to address them openly within the study (Yin, 2018). At the time, I was not aware of any biases that would influence the study. Any such biases found during the study were documented as memos. During the data analysis, I put any exposed biases aside to ensure that the findings of each participant were accurately revealed.

Researcher's Role

As the human instrument in the case study, it is recommended to be a good communicator, ask clear and precise questions, and be a good listener (Merriam, 1998; Yin, 2018). I utilize all those skills daily in both my professional and personal life, allowing me to maintain a career in leadership while pursuing my terminal degree. As an active listener, I captured participant data through the methodologies explained in this chapter. Through

triangulation of the data (Yin, 2018), I created interpretations that present their feedback with respect, empathy, and value of their experiences.

Under no circumstances did I have any relationship with the participants or authority over them. I desired to bring a voice to the voiceless and discover distinct pathways to educate students holistically by elevating their academic journey through social and educational programming. As a parent of a college sophomore, I sought a more unambiguous interpretation of the synergies between social and intellectual integration that would amplify the student's experience and lead to persistence.

Procedures

It was essential to create a detailed plan and overview of how to proceed when conducting a case study (Yin, 2018). Before beginning my bounded intrinsic case study, I sent a letter to the local businesses describing the nature of the study and requesting permission to hang recruitment flyers in the place of business. A copy of the letter sent to the business managers is placed in Appendix A. Next, I sought approval and permission from Liberty University's IRB to conduct the study. A copy of the IRB approval letter is placed in Appendix B. A copy of the local businesses granting me permission to hang my flyers in their place of business is placed in Appendix C. I started collecting field notes at the participants' HEIs 2 days before meeting the participants. I sent a questionnaire to students once they contacted me via email to gauge their interest in the study. They were directed to send the completed questionnaire to my email. The questionnaire is placed in Appendix D.

Once 11 participants emailed their completed questionnaire to me; I emailed them explaining the full scope of the study, the mechanisms in place to protect their identity, a request to voice record the interviews and the voluntary nature of the study. A copy of the email and the

consent form is placed in Appendix E. As part of the study, I asked the participant to schedule an individual face-to-face interview at their school's library. The recordings were made on two separate devices for redundancy. Concurrently, while conducting individual interviews, I observed and took memos and field notes to document participants' behaviors and detail any additional factors pertinent to the study. I recorded them in a template that is placed in Appendix F. I completed all transcriptions utilizing NVivo.

Moreover, focus groups allowed participants to provide feedback on the study (Yin, 2018). I conducted one focus group with three participants to garner feedback and learn if any supplementary information emerged within the group dynamic that could provide additional insight into the study (Yin, 2018). The focus group used the same strategies employed in single interviews to document participants' behaviors and details. All direct observations were recorded and kept in a password-protected digital cloud file. The letter-writing data was collected and stored in a locked cabinet. Once the data collection process was concluded, the data was coded to detect patterns and themes, leading to triangulation and emergent themes (Yin, 2018).

Data Collection Plan

While there is no fixed data format for a case study, meticulous planning of the research questions, units of analysis, linking data collected to the research questions, and the criteria for interpreting the results are foundational to well-developed research (Yin, 2018). Within a university setting, purposeful sampling for the bounded intrinsic case study helped enable participants to engage and give candid feedback about the educational experience with innovative educational content delivery in their authentic voice. The first data collection method was interviewing participants. Next, participants were randomly grouped into a focus group. This form of data collection was employed because it allowed participants to share their perspectives

(Yin, 2002, 2018). The focus group or shorter case study interview was conducted to understand better participants' interpretations of innovative content delivery, as perceptions of innovation can vary among individuals (Yin, 2018). In a small group, I helped facilitate the group discussion to have each participant express their opinions (Yin, 2018). The third form of data collected from participants was through letter writing. This documentation helped strengthen and substantiate information from the additional data collection points (Yin, 2018). Selecting different types of data collection that complement each other well helped create triangulation, allowing me to have a more convincing conclusion because of connections from the lines of data samples investigated within the study (Creswell & Poth, 2018; Yin, 2002, 2018). No data were collected from participants until all Institutional Review Board documentation had been approved by Liberty University.

Individual Interviews

The first data collection was in the form of interviewing 11 participants. This form of data collection was employed because it would allow participants to share their perspectives (Yin, 2002, 2018). Semi-structured parameters were followed to ensure unbiased conventional questioning and allow for follow-up questions (Merriam, 1998; Yin, 2018). To establish rapport with participants and guide the study's focus, the semi-structured interviews began with "grand tour" questions, as suggested by Marshall and Rossman (2016). The research inquiry helped to explore the experiences and perceptions of FGCUs with innovative academic content delivery. During interviews, field notes were documented on each participant. Notes were taken on the participant's body language, intonation in the participant's voice, and mannerisms. The field notes were applied to place context around the transcribed words. Those details within the field notes helped assist in creating themes when reviewing transcriptions. During the interview, all

open-ended questions (see Table 1) were balanced to keep the participants comfortable to fulfill the purpose of the study (Yin, 2018).

Table 1

Individual Interview Questions

1. How do you think integrating innovation into the classroom affects your engagement and learning outcomes? CRQ

2. How has the incorporation of digital course materials such as textbooks, MindTap, and Mylab influenced your educational expectation and experiences? SQ1

3. Describe some of the benefits and advantages you experienced using innovation within your classes. SQ1

4. How do you perceive the impact of digital education content on your studying habits and performance on tests? SQ1

5. What else would you like to add to our discussion about your experience using a physical textbook that we have not discussed? SQ1

6. Describe how innovation in the classroom has influenced or impacted your academic goals. SQ2

7. How do your uses of traditional physical textbooks and digital textbooks compare in terms of their benefits and limitations for your learning experience? SQ2

8. Describe your experience with navigating your school's learning management system. SQ2

9. What else would you like to add to our discussion about your digital content experience that we have not discussed? SQ2

10. In what ways do you incorporate digital content into your daily routine and activities at home? SQ3

11. Describe your experience with the academic support resources available on your campus. SQ3

12. Describe the types of social programs available at your school that support and motivate students with academic pursuits. SQ3

13. What else would you like to add to our discussion about your experience with innovative academic programs that we have not discussed? SQ3

The focus of Questions one through five was to establish a connection and gain insight into how the use of innovation experiences through the use of technology stimulates active learning. Active learning pedagogy encourages social experiences between students that integrate all levels of cognition, leading to positive outcomes and improved retention rates (Kovarik et al., 2022; Lombardi & Shipley, 2021; Malikovna et al., 2022; Shi et al., 2019; Talukder, 2020). Creating a positive relationship with participants at the start of the study is essential in building trust and fostering open, honest discussion (Creswell & Poth, 2018). It helped to gain a clearer understanding of the curriculum. The purpose of these questions was to prompt the recollection of experiences related to innovation and how they affect the classroom learning experience (Eli, 2021). Throughout the interview, there were questions specifically related to innovation. Specific questions were created to ensure that there was a clear connection between innovation and curriculum and how it impacts the outcome of FGCUs' persistence.

Questions six to nine were intended to prompt the recall of previous experiences related to working with innovation in an institutional environment. The goal was to demonstrate how variations in innovation processes can influence participants' perceptions of innovation (Eli,

2021). The aim of these questions was to collect comprehensive descriptions of different innovative experiences during the participant's educational journey and how they affect persistence.

Questions 10 through 13 were intended to understand participants' support systems on and off campus. Determining the extent of support provided by parents and schools can be a reliable measure of a student's perseverance (Tinto, 1973, 1975). Answering these four questions helped provide a more comprehensive understanding to assess the significance of a support system for students.

Focus Group

A focus group or shorter case study interview (Yin, 2018) was employed as the second data collection form. Assessment of personal interpretations of innovative content delivery as perceptions of innovation vary among participants is the principal reason for this data collection. In a smaller group, I facilitated the group discussion to have each participant express their opinions (Yin, 2018). Secondary research questions were asked in the focus group (see Table 2). Much like a single interview, keen attention was paid to the details and sentiments as the participants interacted within the group, and field notes were documented. Field notes helped provide context around the transcription. Those details within the field notes helped assist in creating themes when reviewing transcriptions. The data collected from the focus group was used to triangulate and corroborate the study (Yin, 2002, 2018) with the awareness that the protocol for the focus group may need to be adjusted based on the findings of the individual interviews.

Table 2

Focus Group Questions

1. Describe the innovative content delivery programs on your campus. CRQ

2. Describe the academic resources your school has provided to help you feel supported. CRQ

3. Describe the social resources your school provided to help you achieve your academic goals. CRQ

4. Describe how you would feel if all your educational content was ready for you on the first day of class. CRQ

5. As an FGCU, describe how innovative academic content delivery supports your retention. CRQ

The first question was designed to engage the group in a targeted conversation regarding all innovative content delivery programs offered on their campus. The second question was intended to gauge how students perceive the resource support offered by the school. It is essential to know if students feel supported, as it plays a key role in determining their level of persistence (Tinto, 1973, 1975). In a group setting, the goal was for participants to share their experiences related to the central research question.

The third question expanded on the previous questions and aimed to collect feedback on the particular social resources offered to assist individuals in attaining academic success and continuing their efforts. Providing students with adequate social and academic resources is crucial to keep them engaged in the campus community (Tinto, 1973, 1975). The responses to this question should give specific experiential examples that align with the school's mission statement, specifically related to enhancing education and intellectual growth.

The fourth question assessed participants' feelings about their educational outlook and whether the content was ready for retrieval early in the semester. Would having access to more content improve their perception of their education and support at the school and motivate them to persist? The availability of course materials at the start of class ensures that all students have an equal starting point at the beginning of the semester, leveling the playing field for all students. By utilizing the school's LMS for content delivery, teachers can assess student outcomes in a timely manner, which can positively impact their retention (Crompton et al., 2020; Malikovna et al., 2022). The purpose of the fifth question was to determine how the innovation affects the participants' retention. The goal of this question was to gain a deeper understanding of the effects of the "digital divide" (Heffernan, 2020) on FGCUs and how it has affected their academic achievements.

Letter Writing

At the close of the study, participants were requested to write a 400-word letter to themselves as a junior in high school about their experience(s) with the phenomenon. I chose the third year of high school because that is when students begin to apply to higher education institutions and begin to think about the factors that will be important to them when they decide to attend a particular institution. They were encouraged to share two positives and two negatives and relate those experiences to their daily life. The letter was framed in the context of life experience since entering higher education. The research helped to examine the participants' social and academic integration within the institution, which evaluates on-campus and off-campus life events. This data helped form interpretations and should help substantiate findings (Yin, 2018).

Data Analysis

According to Yin (2002, 2018), the analysis of a research study is based on validity and reliability through detailed, well-defined, and carefully structured data analysis, which will reveal the essence or the truth of the case study. These distinct methods of capturing details were converted into first-cycle and second-cycle codes to highlight pattern detection, categorization, assertions, and developing propositions (Saldaña, 2015) within the study to resolve the primary research question. First-cycle descriptive coding was used to analyze participants' letters. My reflective memos were coded using conceptual labels to establish a framework. I transcribed personal interviews using NVivo versus coding by hand to capture nuances that could assist in informing second-cycle codes. Process coding was used for my memos. I transcribed the group interviews using attribute coding (Saldaña, 2015). All coding data were recorded on tables and diagrams to illustrate core concepts, ensuring the research details were thoroughly explored. All subcategories related to the study were reviewed to confirm the phenomenon's essence evaluated. All data were stored in NVivo. Patterns were determined (Creswell & Poth, 2018; Saldaña, 2015), connecting all first-cycle coding of participants' letters, individual interviews, group interviews, and my memos. Second-cycle coding was applied to develop a distinct set of themes to narrow the categories and themes that emerged during the first cycle of coding (Saldaña, 2015). Jointly, validity was constructed and achieved through triangulation of several sources (Yin, 2018), creating a distinct set of themes. Pattern-matching techniques helped achieve and recognize internal validity (Yin, 2018). Memoing and field notes (Saldaña, 2015) provided insightful context around all participant data collected to strengthen the study.

Participants were interviewed in a prolonged case study interview (Yin, 2018), about 1 hour in length, to allow participants to give insights and expound on the 13 questions posed in

the interview. During this time, participants were invited to suggest additional persons who could share further insights into the case study, similar to snowball sampling. I memoed personal reflections throughout the interviews to verify connections to the participants' experiences related to their social and academic integration within their institution and evaluate their perspectives and views of the world (Saldaña, 2015). For first-cycle coding (Saldaña, 2015), participants' interviews were analyzed concurrently with NVivo and versus coding by hand to obtain any nuances and insights that could inform the second round of codes. Participants were allowed to review the data to ensure accuracy and validation (Saldaña, 2015) via email and had 48 hours to make any updates. Any updates made were recorded, filed, and secured with the original document. Once the additional forms of data were collected, these approaches helped to analyze the codes through triangulation by internal, external, and reliability and construct validity (Yin, 2002, 2018).

Three participants within a focus group were interviewed in a shorter case interview (see Yin, 2018) for about 1 hour to allow participants to express their perception of innovative content delivery. The focus group insights helped enable me to describe the participant's sense of reliability (Yin, 2018). Memoing was performed to verify connections to the participant's experiences as an individual and a group member. Attribute coding was utilized for first-cycle coding (Saldaña, 2015). Each prolonged case study interview and the additional forms of data collected were analyzed through the codes through triangulation by internal, external, and reliability and construct validity (Yin, 2002, 2018).

After reviewing the participant's letter, memoing was performed to verify connections to the participant's experiences related to their lives outside of their institution, supporting the evaluation of their perspectives and view of the world (Saldaña, 2015). Descriptive coding was

used to analyze participants' letters to establish the framework for first-cycle coding (Saldaña, 2015). My memos were coded to add a more profound understanding of the phenomena. Once the additional forms of data were collected, these approaches helped analyze the codes through triangulation by internal, external, and reliability and construct validity (Yin, 2002, 2018).

Trustworthiness

The study's trustworthiness was achieved through the rigor of the data collection and procedures employed to ensure an appropriate balance between the participants and my voice. Meticulous care and consideration went into credibility, transferability, dependability, and confirmability, the hallmarks of trustworthiness within a study as prescribed by Lincoln and Guba (1985). Member checking was also employed to allow participants to clarify and expound on their responses and ensure accurate summarization of their answers (Creswell & Poth, 2018).

Credibility

This study achieved credibility through three methods. The first was prolonged engagement (Lincoln & Guba, 1985) to establish a rapport with participants and become acquainted with their college by investing time (Merriam, 1998) on campus before beginning the research. The second was triangulation of the data using interviewing, focus groups, and letter writing (Yin, 2018). The third was member checking to ensure the accuracy of the data collected from the participants (Creswell & Poth, 2018).

Transferability

Transferability was completed through the generalization of analysis, and reliability will be attained by collecting information from the case study and managing it within a database per case study protocol (Merriam, 1998; Yin, 2018). The research took place at three universities in the Northeast. No restrictions were anticipated for the study participants who provided data. The

11 students participated in the fieldwork, and the methods used to collect the data were through interviews and documentation. Transcriptions from individual interviews and one transcription from group interviews were coded concurrently with my memos applying first and second-cycle coding. Extensive, comprehensive descriptions of the research findings revealed conditions for transferability; however, this research observation can only be made from the reader's perception.

Dependability

Dependability and reliability were achieved by creating an audit trail. I ensured all study procedures were done appropriately by keeping a log of all my memos, field notes, and any adjustments made during the study, which were submitted for audit review. A thorough examination of the process and procedures, including but not limited to my memos and field notes throughout the study, by the dissertation committee and the Qualitative Research Director were completed to ensure appropriateness and correlate findings to the data collected. Audit trails helped to establish dependability (Creswell & Poth, 2018).

Confirmability

All steps were taken to ensure confirmability and neutrality within the study (Merriam, 1998). I employed member checks to verify the accuracy of transcriptions and interpretations. NVivo coding was performed to capture participants' authentic voices relating to the essence of the phenomena juxtaposed to their life experiences outside of school. Triangulation of data collection was completed to corroborate the reliability of the data collected (Yin, 2018). I utilized peer debriefing (Lincoln & Guba, 1985) with a dissertation committee member to confirm that all biases were removed from the data collection. An audit trail guaranteed accurate record keeping and my rationale by examining field notes and memos.

Ethical Considerations

I obtained site approval through the IRB of Liberty University. All participants were given a letter of consent two weeks before the study commenced that provided the overarching purpose of the study. The consent letter also explained the voluntary nature of the research and the participant's right to withdraw from the study, ensuring confidentiality by using pseudonyms for the site and the participants. The participants' consent letters were stored electronically within NVivo, which was used to store data throughout the study. The benefit of being a part of this study was to improve an understanding of how innovative programs impact the retention of first-generation Caribbean undergraduates, which may be transferable to all immigrant students and all institutions. Ensuring participants' identities were not disclosed; all transcriptions were protected through two-way authentication.

Permissions

I had to modify the original student recruiting strategy due to complications with the UPU's IRB. I filled out a modification form with the updated recruitment to open student recruiting to the public (see Appendix G). I had conversations with the business owners and explained the nature of my study. I received written permission from two business owners allowing me to hang my recruiting flyer in their place of business (see Appendix C). Once approved, the IRB from Liberty University is placed in Appendix A. Participants, once selected, completed the consent form describing the voluntary nature of the study, their responsibilities as study participants, and their right to withdraw from the study at any time (see Appendix E).

Other Participant Protections

The consent form requested the email address of all participants. Those email addresses were stored on a spreadsheet in a password-protected iCloud. One week before the start of the

research, each participant received an email reminder informing them about the voluntary nature of the research and their right to withdraw at any time. To ensure their confidentiality, each participant chose a pseudonym to be addressed during the research. Additionally, participants selected a comfortable location to conduct individual interviews, while those participating in group interviews were required to sign a memorandum assuring their peers' confidentiality.

All physical data were scanned and stored in a password-protected iCloud, while the physical items were locked in a filing cabinet in my office for three years before being shredded. Similarly, all electronic data will be stored in a password-protected iCloud. There are no foreseeable risks involved in participating in this study. The benefit of participating in the study was that it would increase the literature on FGCUs for future scholars. At the time of the study, there were no potential issues unique to this study. However, any issue that could arise was handled swiftly and thoroughly with the utmost consideration for the participants.

Summary

This single-bounded intrinsic case study aimed to understand how innovation across social and academic integration among FGCUs supports persistence through a holistic collegiate experience in three Northeast universities. Qualitative research was most appropriate for this study because it captures a complete view of participants' social and academic integration experiences, and perceptions were captured to evaluate innovation's impact on their retention. Purposeful sampling within the university setting was selected as an optimal way for participants to provide candid feedback on the educational experience with innovative content delivery, using their authentic voice. Validity and reliability were achieved through detailed, well-defined, and carefully structured data analysis, which helped reveal the essence or the truth of the case study patterns from participants' letters and individual and group interviews, and my memos will be

connected through first-cycle coding (Creswell & Poth, 2018; Saldaña, 2015). Second-cycle

coding was applied to develop a distinct set of themes to narrow the categories and themes that

emerged during the first cycle of coding (Saldaña, 2015). Jointly, validity was constructed and

achieved through triangulation of several sources (Yin, 2018), creating a distinct set of themes.

Pattern-matching techniques were achieved, and internal validity was recognized (Yin, 2018).

Memoing and field notes (Saldaña, 2015) provided valuable context for all participant data

collected, enhancing the study. Chapter three concluded with techniques for trustworthiness,

credibility, transferability, dependability, confirmability, and ethical considerations.

CHAPTER FOUR: FINDINGS

Overview

The purpose of this intrinsic case study was to understand how innovation across social and academic integration among FGCUs supports persistence at three public urban universities in the Northeast. The problem is that FGCUs are overlooked in the distribution practices of educational content. This chapter depicts the research findings, including participant descriptions, narrative themes, and sub-themes deduced from the data collection, the outlier data discovered, and the corresponding research question responses. The chapter concludes with a summary of the findings.

Participants

To ensure confidentiality, the participant's identities were protected in this study by using pseudonyms as substitutes for actual names and the setting. Liberty University approved the recruitment of participants as described in Chapter Three. Purposeful sampling for FGCUs was used to seek students who could efficiently describe the phenomenon being examined (Creswell & Poth, 2018). Eleven students were interviewed to achieve data saturation, where no new information was gathered (Lincoln & Guba, 1985). Three students were randomly selected to participate in a focus group to help triangulate and corroborate (Yin, 2002, 2018) the findings on how distribution practices using innovation through academic and social integration foster persistence for FGCUs. The participants' letter writing helped to develop interpretations and support findings (Yin, 2018). The participants' demographics were one Black man from Haiti, three Black men from Guyana, one Hispanic man from the Dominican Republic, one Hispanic man from Belize, two Black women from Guyana, and three Hispanic women from Belize. Although the students all identified as FGCUs, their diverse ethnicity, range of time spent in U.S.

higher education, and varied majors contributed to the credibility of this case and allowed for a rich, detailed description of the study (Creswell & Poth, 2018; Merriam, 1998).

Table 3

Student Participants

Student Participant	Year	Major	Method of Participation	Age	Country of Origin	Ethnic Demographics
Bill	Junior	Computer Science	Interview/Letter	21	Haiti	Black
Bob	Sophomore	Business	Interview/Letter	20	Dominican Republic	Latin
Cathleen	Senior	Political Science	Interview/Letter	22	Belize	Latin
Dawn	Sophomore	Architecture	Interview/Letter / Focus Group	20	Belize	Latin
Jackie	Junior	Journalism	Interview/Letter	21	Guyana	Black
Lisa	Senior	Biology	Interview/Letter	22	Belize	Latin
Mellisa	Senior	Journalism	Interview/Letter	22	Guyana	Black
Rickford	Senior	Aviation	Interview/Letter /Focus Group	22	Guyana	Black
Scott	Sophomore	Biology	Interview/Letter /Focus Group	20	Belize	Latin
Shawn	Junior	Veterinarian	Interview/Letter	21	Guyana	Black
Stanley	Junior	Business	Interview/Letter /Focus Group	21	Guyana	Black

The following is a brief description of the participants.

Bill

Bill is an ambitious junior pursuing a degree in computer science. He is a commuter student, works full-time at an after-school program for children ages five through 11, and is an active member of his church. Bill is also a full-time student taking 15 credits this semester, involved in several student clubs, and passionate about the technical side of stage production. He and his family immigrated from Haiti when he was 16. Bill is not shy about using technology and explains, "I highly prefer digital platforms because I am a tech-savvy type of guy. I can figure things out quicker on my computer." Bill is more motivated and connected with his learning experience when technology is used. The experience, according to Bill, "is like adding some spice to the stew. It makes things way more interesting, way more engaging" compared to learning without an innovative component to the classroom experience.

Bob

A sophomore business major who is eager to start his junior year. Bob commutes to campus and works part-time at the campus bookstore and part-time at a national pharmacy chain. This semester, he is taking 12 credits and also helps support his two younger siblings and his mom. He and his family moved to the United States from the Dominican Republic when he was 15 years old. According to Bob, he chose his school because "It really seemed like a community, and I felt connected. I feel like that was something that I would need to help me go through college." Bob felt that using innovation in the classroom made "Everything more efficient and more exciting." He also felt innovation was missing from the classroom and said, "It's about time classes became more interactive. It grabs your attention on the lecture…rather than listening

to someone just droning throughout the class." Utilizing innovation to create interaction with the content kept his attention focused on the lecture while in class.

Cathleen

Cathleen is an articulate, ambitious senior majoring in political science. She is eager to start graduate school and hopes to find a career at the United Nations Children's Fund (UNICEF). She is a residential student and an active member of the student government. She also works part-time at the campus bookstore and is a student tutor. She is on an academic scholarship with an F-1 visa from her country, Belize. Cathleen thinks innovation is a critical element of a Caribbean student's journey that raises the bar. She asserted:

> Innovation is something that is very important, especially when it comes to first-generation Caribbean students, because you want to be challenged in a new country. I would want that innovation to be up and coming and evolving for every class…to give students the opportunity to grow and develop their own skills…

Cathleen is excited about the prospects of staying in America after graduation and has several interviews lined up in her field of study.

Dawn

Dawn is a bright sophomore majoring in architecture. She is a dorm student and works part-time in the campus bookstore. She is active on campus with student organizations and always seeks new opportunities to get more involved in the campus community. She is on an F-1 visa from Belize and is excited to have the opportunity to pursue her educational endeavors. She aspires to find a career in a New York architectural firm. Dawn's family played an important role in helping her make the decision to study at her institution. She shared:

I did some research, and I also had the assistance of my aunt, who does have a position here at the university. I am an international student, and I have never lived anywhere in America or anywhere else other than my home country, so just the ease of having someone who is familiar with this place was just easier.

According to Dawn, utilizing innovation in the classroom helps her, "Especially when new ideas are demonstrated in a three-dimensional way." When asked to elaborate, Dawn responded, "I am a visual learner, and I understand concepts better when I can see their shape. It just makes more sense to me. Maybe it's the artist in me, I don't know. You can't really get that from a book."

Jackie

Jackie is a bright junior majoring in journalism. She is a dorm student and works part-time as a tutor. She is an active member of several student clubs and looks forward to starting an internship at a radio station this summer. Jackie, her mom, and dad, with two other siblings, came to America from Guyana when she was seven. According to Jackie, "Innovation in the class has made learning feel more like a journey. For me, it's not just about reaching a destination anymore; it's about enjoying the ride because there are so many possibilities in my area of study." Jackie preferred using digital textbooks throughout her academic career. When referring to physical textbooks, she noted:

I don't like them at all; from the moment you have to buy them, I'm thinking…I'm only going to use it for this semester, and you're telling me I have to buy a $100 book is insane…and sometimes, depending on the professor, you don't even use a third of the book.

Lisa

As a senior majoring in biology, Lisa is excited to start her next life chapter and is looking forward to extending her stay in America by entering graduate school. As a dorm student from Belize who spent the last four years at an American university, using innovation in the classroom helped her for the next chapter of her life. Praising the benefits of using technology in the classroom, Lisa shared, "…using innovation in class is huge. It's not just about learning the same old stuff anymore. It's about exploring new ideas and new technologies." Lisa clarified, "The field of science is always changing and so you need to change with it to stay competitive and stay ahead." During COVID-19, "…I never thought I would need…my Samsung tablet like that. I used it a lot more. It showed me what's possible when you think outside the box…and broke through the learning barriers during COVID."

Melissa

Melissa is an assertive senior who is majoring in journalism. She is a commuter and lives with her parents and four younger siblings. She and her family immigrated from Guyana when she was ten years old. Melissa works part-time as a student employee in the Registrar's Office at her university. She is excited about applying to graduate school and looking forward to expanding her education. Melissa thinks innovation is an upgrade in her education and enjoys how it has helped her succeed. She noted, "Digital education content has made studying feel more modern and relevant." Melissa also expressed that she is a cost-conscious shopper and doesn't care for physical books because "They're too pricey." Regarding the digital book, she noted, "I get to skim through it and highlight, and if I would forget something, I would select it through the little commands and shortcuts." Emphasizing her preference for innovation, she stated, "I'm not really a traditional textbook type of person."

Rickford

Rickford is a highly motivated and self-driven senior majoring in aviation. He is on an academic scholarship and is a dorm student who has dreamed of flying all his life. Rickford has already obtained his pilot's license and is determined to become a JetBlue commercial pilot. Additionally, he works part-time at an airport. He, his parents, and his younger sibling immigrated to America from Guyana when Rickford was five years old. Rickford explained how he utilized both physical and digital textbooks to enrich his learning experiences at school. He explained:

> Physical textbooks are for me; I used them more like in a private setting to study for a test. Whereas my digital books I used for discussion to keep everyone on the same page, it's easy to open the system we use and search up topics.

Rickford noted, "Incorporating digital content into my daily routine is second nature to me…I use educational apps on my phone to review flashcards during breaks, watch TED talks or documentaries during lunch, and even participate in virtual study groups with classmates." He makes the most of every moment to enhance his learning experience.

Scott

Scott is a brilliant sophomore majoring in biology. He has set his goal to become a doctor. On a scholarship from Belize, Scott is ending his sophomore year with a perfect 4.0 GPA. Scott described, "… the first time I used a digital textbook was my first-year biology class. There was a textbook online and it was also connected to the homework. So, I'd read the textbook and then complete the homework. I was purely online." Scott noted that digital textbooks are "…good for studying, like creating flashcards that can be specific to the areas you are having problems with. It cuts down on time finding the issues and then creating study notes manually. It has helped me with studying."

Shawn

Shawn is a junior majoring in veterinary science and living in the dorms. He is also an athlete and plays football for his school's team. Shawn is an only child, and he and his mother immigrated to America from Guyana when he was just a few months old. Despite his passion for football, his true calling lies in becoming a veterinarian. He "used textbooks and articles online" that he downloaded. Shawn expressed, "They were convenient because I could get to a specific part of the textbook fast by using a keyword. You could pull it up whenever, and it is lightweight and compact." When asked to elaborate on the differences between traditional textbooks and digital textbooks, he responded with:

> They're the same in terms of getting the information that you want to receive. It is a matter of how you want to get the information. If I'm really trying to study something and understand it, I would use a physical textbook, highlight it, take my time, and underline it. Whereas if I'm in class and I have an assignment where we have to read the textbook, and we're on a time schedule I would prefer to use the laptop where I can just breeze through it. Digital textbooks are far easier to come across. Whereas traditional books are not as easy to access and are more expensive, especially when you are taking multiple classes.

Stanley

Stanley is a junior majoring in business management and looking forward to starting his senior year. He commutes to campus and lives with his parents and three younger siblings. Stanley and his family immigrated from Guyana to America when he was 15 years old. He loves coding and video games. He is currently working on creating his own games and is looking forward to his internship this summer at a coding company in New York City. He loves using

technology in his classes; he thinks "it's like a breath of fresh air…not the same old routine."

Stanley stated that he is always more engaged when using innovation in class and affirmed:

> I think it helps me learn better because I can record my classes so I can go back over my
>
> notes to really get the ideas and concepts I might have missed during lecture. Even if I
>
> miss something, it's all in my notes. I use Glean, and it really helps me.

Results

The purpose of this intrinsic case study was to understand how innovation across social and academic integration among FGCUs supports persistence at a public urban university in the Northeast. The participants were from three public urban universities in the Northeast. Data were studied through in-depth analysis of individual interviews, a focus group, and participant responses to a letter prompt. The themes of Endurance, Educational Expectation, Educational Aspiration, and Educational Motivation were identified. The responses to individual interviews, a focus group, and participant responses to a letter prompt were carefully assessed to form subthemes. These subthemes are a representation of participants' experiences with accessibility and convenience, collaboration and engagement, efficiency, increased motivation, professional development, building community, academic resources, social resources, and stress management. Figure 1 provides a visual representation of these themes and subthemes, which are presented both visually and narratively in this section.

Figure 1

Themes and Subthemes
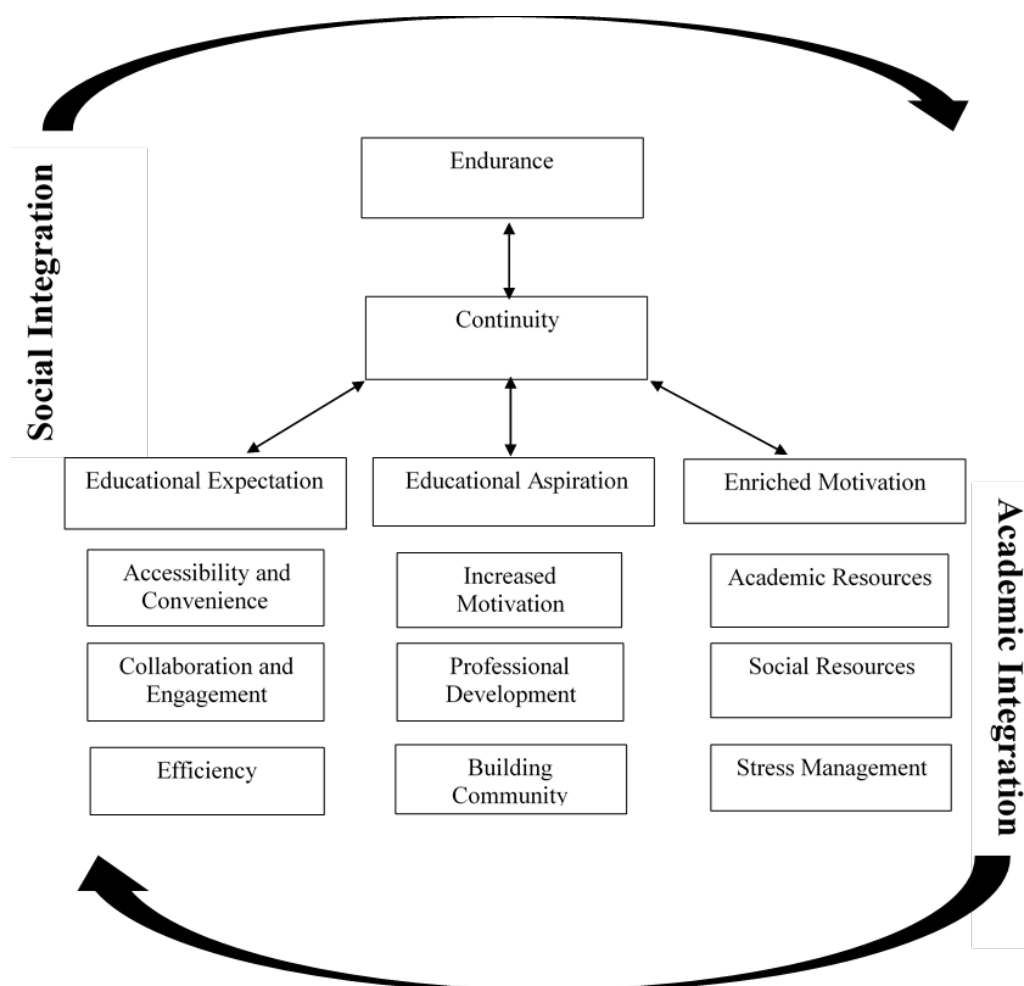
Digital transcriptions of participant interviews, a focus group, and participant responses to a letter prompt were examined using NVivo. First-cycle codes (Saldaña, 2015) for participants' interviews were versus coding by hand. Descriptive coding was used to analyze students' letters, and attribute coding was used to examine the focus group. Second-cycle coding was applied to develop three themes and nine sub-themes (Saldaña, 2015). The analysis highlights patterns, categorizations, assertions, and development propositions to address the central and sub-research questions. A list of codes is provided in Table 4.

Table 4

Themes, Subthemes, and Codes

Research questions	Themes	Subthemes	Codes
CQ1- How has innovative academic content delivery affected the retention of FGCUs?	Endurance	Continuity	Determination Money Flexibility Accomplishment Campus culture Setting examples for siblings
SQ1- How does exposure to innovative academic content delivery influence the educational expectations of FGCUs?	Educational Expectation	Accessibility and Convenience	Accessible Prepared Convenient Quick references Time saver
		Collaboration and Engagement	Collaborate with peers Communicate with professors Engagement Excitement for learning Prefer digital Not bored LMS delivery New ways of learning
		Efficiency	Better test outcomes Efficient Organized Tracking progress Test reminders Listen to my notes Educational value

Research questions	Themes	Subthemes	Codes
SQ2-How has the educational aspiration of FGCUs changed since engaging with innovative academic content?	Educational Ambitions	Increased Motivation	Push harder to achieve Raised my academic goals Higher expectations of learning More rounded learning experience
		Professional Development	Job readiness Internships Career Center Networking Using tech Cutting edge development Work on campus Traveled for classwork
		Building Community	Caribbean Club Student organizations Chapel Community service
SQ3- How have the experiences with innovative academic content delivery influenced the educational motivation of FGCUs?	Enriched Motivation	Academic Resources	Academic advisement Library Computer lab Writing center
		Social Resources	Peer tutoring Student lounge Greek life Athletics
		Stress Management	Counseling Motivational Speaker Peer mentoring Gym Family

Endurance

Persistence in higher education for FGCUs is a topic that is open for interpretation, as it is influenced by various factors that affect their retention. When all factors are balanced, FGCUs have a desire to continue their higher education academic journey. Innovation has helped neutralize linguistic diversity and religious influences, which could usually impact the students' assimilation into a college setting due to cultural differences. Overall, the students had a positive attitude toward innovative content delivery and looked forward to what it could mean to their academic prowess. In the individual interviews, when asked to share how innovative academic content delivery affected your retention, Jackie enthusiastically explained, "Innovation in class has made learning feel more like a journey. You get on this interactive path, and you wanna [*sic*] see it to the end." Cathleen explained how she used innovation to chart her path successfully through college. She explained:

> I have an interface called Notion, that keeps all of my tabs and my syllabus and my textbooks together. I have weekly planners, daily planner pages on my iPad that I utilize the day to day, week to week, planning my schedule, planning my assessments, planning study periods. I could not have stayed on top of everything without it.

Bill noted, "It helps me stay on top of my game and do better in class. I am trying to show my little brother he can do it, too. It works. You can't be afraid of it. Innovation and technology will take you places."

Continuity

Innovative content delivery has brought a sense of cohesiveness to the experience of FGCUs that leads to better outcomes. In his interview, Bob said, "I feel like Blackboard made everything easier. I can find all of my information from my professors there. It's helpful because

everything is in one place." Stanley explained, "Moodle has everything about my school in one place. I just log in, and I can see my assignments and my transcript, load up my campus card for the cafeteria, and schedule tutoring there. It's really a one-stop shop. I can keep track of everything in one place." In his interview, Rickford explained:

> My school cares about our success. They try to give us tools to make sure we achieve our goals. We have to track all of our safety programs. Keeping all of that stuff online, where the safety officer can track stuff, and people can make input at any time, it makes things faster makes things a lot easier. It helps to keep people better on track.

Educators who utilize the LMS to upload homework, course content, digital books, and assessments are creating measurable pathways for students to access avenues of success, which is linked to improved student outcomes and retention.

Educational Expectation

The desire to achieve the American Dream through higher education is instilled in many FGCUs by their families, creating high ideals and educational expectations of American higher education. Their expectations regarding American higher education are fundamental to their commitment to pursuing a degree. The general sentiment shared by the students was their family's desire for them to seek opportunities to live a better life through education. For example, Dawn said, "My parents showed me the steps to achieve my dreams, and college in America was it." Similarly, Stanley expressed, "My mom told me and my siblings we came to America to make a better life for our family, and the only way to do it is to work hard in school." Almost all participants articulated how some of their educational expectations were influenced by how educational content is delivered. When describing how exposure to innovative academic content influences educational expectations, Bill exclaimed, "It's a game changer." Jackie shared

the same excitement and said, "Digital course materials have made my life so much easier."

Also, speaking about innovative academic content, Cathleen declared, "It raises my level of

expectation because I really get into my work and focus on it when it's on my iPad." The

findings among participants indicated that faculty strive to ensure that students are fully engaged,

actively participating, and encouraged to think deeply from the moment they begin class. By

implementing innovative teaching methods and distributing impactful content, faculty can create

an active learning environment so students can use their prior knowledge to create new insights

through hands-on experiences. This active environment helps establish a strong and sustained

connection with students, which can ultimately help them achieve their desired level of

education.

Accessibility and Convenience

Students and their families have experienced various issues related to higher education in

the Caribbean. Dawn stated, "I think America has always been a little bit more advanced when it

comes to technology." When asked to share the reason she chose to study in America, Dawn

declared, "So, just overall access. Not everyone has access to a personal laptop to carry around

and open up their textbook. People can't afford it. The thing I will consider all the time is that I

am fortunate." Accessing educational content in higher education can be challenging in the

Caribbean due to various factors, including a lack of resources, socioeconomic barriers, and

unreliable high-speed internet connectivity. Lisa expressed, "The best thing about digital books

in America is "…having access to my books anytime, anywhere… it does help a lot with my

chemistry. She also likes using a "Jamboard for chemistry because the teacher sees how you're

answering the question in real time…It's like a collaborative process where you can write, and

your classmates help each other. Having access to everyone in real-time is a good experience"

and is unlike anything offered in her country. These perspectives demonstrate the recognition of some of the limitations with academic content delivery that FGCUs encounter in the Caribbean and show a realization of greater opportunities for higher education in America while accessing educational content.

Accessibility was stressed as a key factor to educational success among many students. For example, enabling students to access course content anytime and anywhere keeps them abreast of the coursework and faculty expectations, as the demands of courses and collegiate life can change throughout the semester. Access to digital content at convenient times allows FGCUs to prepare for their classes while acclimating to their new environment. The findings showed that throughout the data collection, participants made 72 references to accessibility and convenience (see Table 4), demonstrating how satisfied they were with accessing digital content. As an example, when asked to share how the incorporation of digital course materials influenced their educational expectation and experiences, Bill said, "I can access it at any time; on my phone, computer, laptop; everything is literally at your figure tips in real-time when I'm online, and I can even work offline." Stanley recounted how he felt about accessing his educational content and said, "Digital textbooks offer a whole new level of convenience. I can search for specific terms and access multimedia. It saves me so much time." Similarly, Dawn said, "Digital content puts all my resources in one place, which is convenient and helpful." These examples reveal how access and convenience significantly impact the academic experiences of FGCUs.

Collaboration and Engagement

Another important theme that emerged was the role of innovative academic content in supporting collaboration and promoting engagement. The study found that collaborating and communicating with teachers and classmates using digital content allows students to actively

engage with the material. In his interview, Bill spoke about the way he uses technology for class. He earnestly said, "It changed the way I collaborate with my classmates. We can share notes with just a few clicks." In his interview, Stanley reflected on the benefits and flexibility of having digital educational content inside and outside of class. He said, "I could pinpoint and let my professor know the area I need help with" in his math class, "and I can collaborate with my classmates in real-time." Bob spoke about how he uses innovation to study for midterms. He said, "I can chat in online discussions with classmates and share notes. It's like a study group never sleeps." Student engagement is a critical factor in helping drive active learning, which leads to solid outcomes. Students noted an increase in their overall engagement in class when utilizing digital content for class instructions. Melissa explained:

> I'm more engaged. It's like stepping into the 21st century. I don't gotta [*sic*] deal with outdated books. It's all up-to-date and interactive. I'm not bored with school. I was excited because everything was flowing through, so I found it interesting. It was better than the traditional textbook in the traditional classroom.

In his interview, Shawn explained:

> It has its benefits, like keeping things interesting and engaging. Man, the advantages of using innovation in class are great for some classes. It works will for my science classes like anatomy and physiology. Science is evolving all the time, and you have to stay on top of things.

Bob said, "Using innovation in class makes learning feel more relatable. I like learning about things that I can use in the real world. Yeah, this matters to me because it's relevant to my generation and the times we are living in." The sentiment expressed by Bob exemplifies why it is

important for faculty to use teaching methods that are familiar to students and illustrates the principles of social constructivism.

Efficiency

Several students noted that utilizing innovative content delivery methods has been more effective in supporting their academic achievement. Participant statements have a direct correlation with active learning. When asked about the impact of digital education on study habits, Jackie said:

> Using digital education content has helped me study more efficiently. It does help with learning outcomes because you can basically track how well you are doing in a particular area of your class to see how your performance aligns with the learning outcomes.

Stanley shared the importance of access, "I can really dig into stuff. It's like I am not just memorizing stuff anymore. I'm actually understanding it because the examples kind of come to life, if you know what I mean." Digital content delivery enables students to independently access and explore educational materials asynchronously at their own pace, enhancing their learning experience. For studying, Lisa clarified, "I can use interactive tools and resources. To me, it makes studying way more interesting and effective. I can even test myself to make sure I am grasping concepts in my Pearson book. It's cool, and it really helps." Shawn said, "Digital content has enriched my learning experience for my science classes. I can access multimedia resources like videos, animations, and interactive simulations to better understand complex concepts." These responses illustrate how innovative academic content interrelates with Piaget's (1926) cognitive constructivist principles, affecting the participants' academic experiences and outcomes.

Educational Aspirations

FGCUs' perspective on higher education in America is seen as an opportunity, and they have increased motivation to make a better life for themselves. Cathleen wrote in the letter prompt to her younger self:

Take it one step at a time… Enjoy the time home because before you know it, you are on a plane out of the country, away from home, and you're on your own. It may feel scary and sad, but once your first year away is complete, you will want to do everything, do anything, and be everything. You'll want to do it all and get overwhelmed by the choices, but regardless of what you pick, you will do well, and it will help you grow to newer heights... Ask for that resource, apply for that program, get your resumes reviewed, and join job websites…From right now, where I am currently, trust me, you'll be just fine.

FGCUs are highly motivated to make their families proud. Cathleen also writes, "…you stay true to yourself. You grow, and you make yourself and your mom and dad proud. Don't let fear hold you back; let it propel you forward." In Stanley's letter, he wrote, "You will apply for graduate school and will start a career doing what you love. You are in a great program and didn't get lost like you thought you would when you were a freshman."

Increased Motivation

The use of innovative educational content distribution by faculty at HEIs has resulted in an increased motivation to learn among FGCUs in this study. Students expressed that using innovative educational content distribution increased their motivation to learn. While each spoke of their motivation, innovative content distribution was a source of inspiration that got them excited about their future. Lisa spoke of how utilizing technology for virtual classes helped her in school during COVID-19. She said, "It's like showin' [*sic*] me what's possible when you think

outside of the box. It makes me challenge myself and has broken through the learning barriers during COVID." Similarly, Rickford shared, "There was a massive shift to innovation during the COVID years. The concept of doing Zoom calls and the infrastructure for being able to do classes online has improved dramatically and changed education forever." Shawn spoke about how innovation inspired his confidence:

> I would say innovation in the classroom has made me more confident in my academic goals. It shows me that I have what it takes to succeed, no matter what challenges come my way. Makes me believe in myself and my abilities.

Similarly, Scott said, "It makes me more determined to achieve my dreams because there are so many possibilities out there." These are examples demonstrating how innovative distribution practices have inspired active learning inside and outside the classroom and helped FGCUs recognize their potential for success.

Professional Development

The participants reported that their professional growth was positively impacted by innovative content distribution methods used in their classes. Participants shared that they developed and honed various useful skills not only during their studies but also in their future careers. Utilizing innovation and technology promotes active learning, helps participants visualize connections to their career paths, and gives them a sense of focused purpose to complete their degree. Rickford said, "It's given me a way to feel connected to my career path than I think anything else. You need the closest thing to the real experience, and that is what innovation has brought me at my college." Dawn said:

My dream is to get a job at an architectural firm in America. I want to help my mom with her construction company back home. I believe I can do both. The different types of tech and building materials that I will find here I can send back home.

Bob said, "Using innovative academic programs has empowered me to take ownership of my education and pursue my passions as a business major." Cathleen explained the positives of sharing:

I've had a good amount of benefits, especially when it comes to my resume. I find classes and programs that have innovation as their main objective, instilling it into students, and I use those skills to apply for jobs post-grad and during my undergraduate degree.

Building Community

Finding a sense of belonging is crucial for FGCUs to feel connected and engaged while on campus. Building a community of like-minded individuals keeps students busy, helps them assimilate into American culture, and reduces homesickness. Melissa explained, "I've found a supportive network of peers and mentors who share my background and values." Similarly, Rickford noted, "Networking in aviation is useful. It makes me feel more connected to my education and my career." Scott said, "On my campus, I try to network as much as possible. It keeps me grounded. I hope it will help me in med school."

Enriched Motivation

Various factors influence the educational motivation of FGCUs. Among these factors, the types of support provided to FGCUs play a crucial role in helping them stay focused on their academic goals. As suggested by the students, without this support, it would be challenging for FGCUs to excel in their studies and perform well in an academic setting. Participants stressed

that the schools that ensure adequate support are the institutions that see them through to graduation.

Academic Resources

Students reported that their institutions have provided adequate academic resources that provide the necessary support to achieve their academic endeavors, such as the library, writing center, and the availability of academic advising. For example, Scott said, "It is great to access the online library for research materials." Mellisa shared, "I would go to the writing center, and they would sit down with me one-on-one and help me brainstorm where I was stuck. It was a real help." Shawn stated, "Academic advising services where I can meet with an advisor and map out my academic goals is very helpful and keeps me on track." Lisa said, "I also attend a time management workshop to help to juggle my busy schedule." The other academic resources mentioned included the technology and science tutoring labs, respectively. As suggested by the findings, though these support services are earmarked as academic, they each have social components and would be ineffective in supporting FGCUs efficiently without their social elements.

Social Resources

The social component of higher education is critical to students' success, especially those from diverse cultural backgrounds. These social resources are often closely related to academic resources but must be acknowledged as social, as a peer element goes beyond academics and makes it social. Nevertheless, social resources have an intertwined complementary factor, and one without the other would result in a collapse in academic pursuits for FGCUs. During the focus group, the students were asked to share the types of social programs available at their campuses. They provided a list of social resources available to them on campus that helped them

assimilate into American higher education norms. Bob shared, "There are great academic clubs where I can connect with students from the same major who have the same interests." Dawn said, "There are peer-led study groups for exam preparation." Lisa stated, "The study lounge is where we can vibe with friends while hitting the books." Similarly, Scott said, "Study lounge is where we can collaborate with classmates." Shawn expressed, "Peer tutoring in person and online is where I keep up with my studies."

Stress Management

When asked to share additional information that was not covered in the discussion, many participants spoke about stress management. Managing stress is a complex issue for FGCUs, as it involves multiple aspects. On the one hand, students must deal with the everyday experiences of college life, while on the other hand, the family aspect can have both negative and positive effects. The stress that FGCUs experience daily is a delicate balance that can impact their academic performance and their lives after graduation. Families often serve as a support system, providing words of encouragement that inspire FGCUs despite their lack of experience in the American higher education system. In his interview, Shawn declared, "I can always call my mom when I am feeling stressed. She is my source of inspiration." Stanley shared, "College life is hard, and sometimes I don't know if I can cut it, but my mom is always there to light the way and give me a word of encouragement. I know how hard she works, so I'm going to make sure I work hard to make her and my dad proud." Students stated that schools have also created opportunities to manage stress while in college. Dawn shared:

> I went to counseling for a little bit because it was my first time away from home, you know, and home is not around the corner. It was a little stressful for me, but they were great, and I feel like this is my home away from home now.

Midterms were challenging, and Stanley shared feeling stressed, but he expressed his satisfaction with how his school tried to ease midterm stress. He recounted, "They even brought puppies on campus during midterms. They try to keep things fresh. It's nice because you can tell they are trying to help us cope with the stress of college life."

Outlier Data and Findings

The data suggest that when teaching a diverse group of students, it is important to consider the tools used for instruction, as many factors can affect student persistence. Some outlier data surfaced during the study due to the broad data collection and analysis. Three of the students, Shawn, Dawn, and Scott, raised concerns about the potential distraction caused by digital textbooks. It is worth noting that this demonstrates FGCUs' awareness of the potential pitfalls of utilizing digital content for learning. By acknowledging this, the students demonstrated their ability to identify vulnerabilities, which shows their awareness of their learning style. This awareness has prompted them to consciously avoid digital distractions that impede their academic persistence.

Distractions

When asked to elaborate on the vulnerabilities associated with using digital content, Dawn clarified, "One thing with a device, you can get easily distracted by it because everything is on it." Dawn is conscious of potential digital distractions while studying and "turns off apps" that may interrupt her while studying. Similarly, Scott noted, "It is good to have things digitized, but sometimes it can be a distraction. You have to be disciplined to stay on track." Shawn preferred traditional textbooks over the digital version and asserted, "This might be a surprise, but I actually like the physical book because it allows me to touch the book, highlight, and underline when I'm actually reading. I get a little distracted by digital content." He does not like

"the glare of the computer" when he studies. In his letter to himself as a junior, he includes some advice:

> Social media, messaging apps, and notifications can easily pull your attention away from your studies and make it difficult to focus for long periods of time. I have implemented strategies like setting designated study times and incorporating technology-free breaks to stay productive.

Each student had their own way of addressing their potential distractions with digital content to keep them focused on persisting through their educational endeavors. Dawn and Scott decided to continue using their digital content and worked through potential distractions. Shawn preferred physical textbooks over digital ones and implemented strategies to limit his digital content during study times.

Research Question Responses

Eleven FGCUs were interviewed to explore the impact of how the distribution practices of educational content affect their retention. The study also involved writing their letters to themselves as juniors in high school and conducting a focus group with a smaller subset of study participants. The study suggests that creating an ecosystem of persistence that supports FGCUs' educational expectations, aspirations, and motivations is crucial in achieving retention through innovative distribution practices of content. The findings answered the following research questions and corresponding sub-questions.

Central Research Question

How has innovative academic content delivery affected the retention of FGCUs? Four themes emerged from the data: endurance, educational expectations, educational aspirations, and enriched motivation. FGCUs have educational expectations that American higher education

offers something more than students would experience elsewhere. In his individual interview, Stanley shared, "I wanted to find a school that had a great program to push me to the next level. I knew my major would challenge me, and I have the best professors." Rickford declared, "I can't imagine being in five classes and not being able to see assignments in one place or get my grades and stuff like that. It is really convenient to have everything in one place. I do everything in there." Referring to innovation in the classroom, Mellisa proclaimed, "It makes me more determined to succeed." Dawn explained during the focus group:

> We get to go to site visits, and we get to put ourselves into the actual site that we will work on for the semester, and this is actually extremely beneficial for us. We get to walk around and experience the different perspectives of the site.

Fostering opportunities for an immersive environment where students can see the possibilities of achieving their goals is paramount for FGCUs persistence. Jakie exclaimed, during her individual interview, "The writing center has helped me become a stronger writer, and I can't wait to start a career in radio and broadcast." These collective educational experiences by the students demonstrate the principal elements that intersect the four themes and corresponding subthemes, which emphasize the cognitive-constructivist principles and social-constructivist principles, foundational to active learning experiences and leading to persistence. All innovative methods of educational content distribution to FGCUs that encourage active learning support an ecosystem of persistence, ultimately resulting in better retention.

Sub-Question One

How does exposure to innovative content delivery influence the educational expectations of FGCUs? Innovative content distribution methods have shaped the educational expectations of FGCUs. It is worth noting that the baseline of what American education offers is due to the

reputation of the United States and the opportunities it provides for immigrants. With the expectation that their lives will improve, students seek educational experiences that can truly change their lives. While experiencing innovative distribution practices of content, students have come to expect easy access and convenience, collaborative engagement with peers and faculty, time-saving efficiency, and an organized system to help them stay on track to support retention. For example, Stanley shared, "Using innovation in class is like discovering a hidden treasure. It opens up new ways of learning and new ways of thinking. It makes me feel like I'm really getting something valuable out of my education." These components create experiences that blend social and academic elements to encourage active learning.

Sub-Question Two

How have the educational aspirations of FGCUs changed since engaging with innovative academic content delivery? Engaging with innovative academic content delivery has emboldened self-awareness and ambitions that FGCUs may not have thought possible before, which helps support retention. In a letter to herself as a junior, Dawn wrote:

> You've delved into new design techniques, exploring sustainable practices that blend seamlessly with aesthetic brilliance. Collaborative projects have fueled your creativity and shown a creative side of yourself you may not have known even existed. So, dear high school self, brace yourself for a roller coaster of learning, challenges, and unforgettable experiences. College will stretch your limits, but it will also mold you into the person you're destined to become.

Sub-Question Three

How have the experiences with innovative academic content delivery influenced the educational motivation of FGCUs? The educational motivations of FGCUs have been enriched

by the innovative support services they have encountered at college that support their social, academic, and emotional well-being to support retention. To herself as a junior, Lisa wrote:

> It's already the end, t-minus one month, one week until graduation. You will do things and be involved in ways you never imagined. You are a Resident Assistant in a freshman and upperclassmen building. You are a senior senator of your university's Student Government Association. Through working in Resident Life, you've met and got the opportunity for multiple jobs and summer internships out of college. Although that longing for being home never leaves, as the city and urban fast-paced life can be draining, having a support group here makes a world of difference.

Summary

Students shared detailed experiences of innovative educational content delivery during their higher education journey. Their experiences illustrated how innovative educational content delivery influenced their perceptions of education in the United States. Each student's account highlighted the presence of social and academic integration in innovative educational content delivery. Students revealed that exposure to innovative academic content delivery for FGCUs supports their endurance, educational expectations, educational aspirations, and educational motivations. The implementation of active learning pedagogy using innovative strategies assists in maintaining retention through social and academic integration. As indicated from the findings, institutions that promote innovation by using creative approaches to content delivery help cultivate a multi-layered ecosystem of persistence that reflects and supports the diverse needs of FGCUs' retention.

CHAPTER FIVE: CONCLUSION

Overview

The purpose of this intrinsic case study was to understand how innovation across social and academic integration among 11 FGCUs supported persistence at three public urban universities in the Northeast. The data analyzed in this study came from individual interviews, a focus group, and participant responses to a letter prompt. In this chapter, the study's results will be presented, along with the connection between the findings and the relevant literature review in Chapter Two. The chapter offers additional information to inform policy on the role of innovation across social and academic integration for FGCUs. The study's contribution to the literature on students' perception of the role of innovation across social and academic integration for FGCUs to support persistence is included. This chapter concludes with a discussion of the study's theoretical and empirical implications, limitations, and delimitations applicable to the study. Recommendations for future research on innovation across social and academic integration for FGCUs' persistence are outlined in the conclusion of this chapter.

Discussion

After identifying a gap in the literature related to the distribution practices of educational content relating to persistence among FGCUs, the study explored the educational experiences of 11 FGCUs. Participants consisted of three sophomores, four juniors, and four seniors enrolled at three four-year accredited higher education institutions within the Northeast. Data were collected through individual interviews, a focus group, and participant responses to a letter prompt. The study was underpinned by Tinto's (1975) dropout theory and the theory of institutional departure (Tinto, 1973). The primary areas that were explored in this study were social integration into a campus community through connection with peers and faculty and intellectual integration

through academic performance for FGCUs. The role of innovative pedagogy was evaluated as an instrument that created synergy to support social and academic integration for FGCUs. The diverse majors of the FGCUs selected for this study illustrated how the role of innovation across social and academic integration affected their persistence. The collected data was carefully analyzed using rigorous first- and second-cycle coding to examine nodes and generate codes providing a comprehensive description of the student's educational and social experiences within this bounded intrinsic case study. Joint validity was established through triangulation of sources (Yin, 2018), and pattern-matching techniques were used to ensure internal validity (Yin, 2018).

Interpretation of Findings

The bounded intrinsic study was based on a central question and three sub-questions. The results of this study suggest fostering a holistic educational environment of innovation that creates opportunities for active learning through social and academic integration promotes persistence for FGCUs. Through a review of the literature, data collection, and data analysis, the findings of this study imply that innovative pedagogy supports FGCUs' persistence because it augments their endurance, educational expectations, educational aspirations, and enriched motivation. Creating opportunities for students to engage with immersive educational content through innovative teaching methods has diverse applications for faculty. Nonetheless, these support social and academic integration, leading to persistence. It is evident from the study that FGCUs have had various experiences where innovative educational pedagogy has fostered enriched collaboration and encouraged social interactions (Dean, 2015; Rienties & Tempelaar, 2018). The results of this study include implications for policy, implications for practice, empirical and theoretical implications, limitations and delimitations, and recommendations for further research.

The central research question foundational to the study was: How has innovative academic content delivery affected the retention of FGCUs? This question focused on the effectiveness of innovative methods for delivering academic content in order to improve retention. The 11 participants provided detailed descriptions of their interactions with innovative academic content delivery, as well as their interactions with their peers, faculty, and support services on campus. The application of innovative pedagogy is at the discretion of the faculty's academic freedom and has been implemented in various ways. However, most participants favored and engaged more with their educational content when innovation was applied at different times during their college experience.

The participants expressed enthusiasm about opportunities to utilize innovation within their educational experience. They indicated improved organized study habits, better organization, and a more engaging learning experience, which improved their motivations about school. Discussions with the students also revealed a level of self-efficacy, which helped to identify educational preferences that might have gone unnoticed if they had not been placed in situations that provided access to innovation. In other words, being exposed to innovative pedagogy helped several participants recognize their educational vulnerabilities with different types of innovative educational content delivery, which enabled them to concentrate more on the educational material (software) and less on the tool (hardware), thus enabling them to stay more focused on their studies.

Sub Question One was, How does exposure to innovative content delivery influence the educational expectations of FGCUs? High levels of engagement with innovative content delivery methods such as digital textbooks, collaborative digital whiteboards, simulations, and immersive offsite locations offered FGCUs the flexibility to access content synchronously and

asynchronously to sustain the learning continuum, thus enabling active learning at various intervals of the interaction with the content. Most of the participants shared that there was value in the innovative pedagogical content, which allowed them to derive more from the learning experience. Sub-Question Two was, How have the educational aspirations of FGCUs changed since engaging with innovative academic content delivery? After experiencing innovative educational content delivery, participants reported feeling inspired and motivated to strive harder to achieve their educational goals. Sub-Question Three was, How have the experiences with innovative academic content delivery influenced the educational motivation of FGCUs? The students expressed that the support services play a crucial role in providing the needed support to stay focused on college life.

The Belief that Innovation Advances Higher Levels of Learning

The essence of the finding is that innovative academic content delivery methods support a psychological belief that aids in sustaining social and behavioral variables, which educators must consider and balance to sustain FGCUs' persistence. These variables are shaped by their expectancy of college life in America, which is filled with the elements of social and academic integration within a campus community. FGCUs' psychological presumptions of achieving a better future because of attending college life in America were based on ideas implanted by family members. Several students expressed their family's influence on their desire to seek an American college education. Dawn asserted, "My parents showed me the steps to achieve my dreams, and college in America was it." This supports Doucet's (2005) and Reliegh & Kao's (2010) assertion that parents' attitudes toward education play a role in their children's educational motivation. For students, this creates high expectations for what American higher education offers to those who choose to integrate by adopting the host culture while sustaining

their home culture (Berry, 1997).

Exposure to innovative pedagogy stimulates active learning that promotes shared experiences between students, integrating all levels of cognition that impact students more profoundly than in a traditional classroom (Lombardi & Shipley, 2021; Shi et al., 2019; Talukder, 2020). These engagements involve not only social but also behavioral components that are necessary to complete the learning experience, allowing students to connect information from previous experiences to construct new knowledge. Students revealed that they interacted and collaborated smoothly with each other and with faculty. Stanley communicated that he could reach out to his faculty and "pinpoint" the area he needed extra help with and "...let my professor know." While Bob shared, using innovation with his study group was "…like a study group never sleeps." The findings corroborate Crompton et al. (2020), Kovarick et al. (2022), and Malikvana et al. (2022) assertions that active learning pedagogy through innovation allows students to actively participate in the learning process and use their prior knowledge to create new insights through hands-on experiences. By infusing innovation into the learning experience, a social environment was created that was efficient, accessible, collaborative, and engaging. My research indicates that FGCUs expect HEIs to incorporate innovative teaching methods that provide dynamic learning experiences. As Cathleen mentioned in her interview, "It raises my level of expectation..." While students value traditional classroom teaching, there is a growing demand for more innovation in the classroom (Hartman et al., 2019). COVID-19 and student expectations have enabled HEIs to revamp their educational delivery strategies (Ahmed & Opoku, 2022; Bond et al., 2021; Burk-Rafel et al., 2020) to meet student needs. This finding supports the assertions by Bernacki (2017), Crompton et al. (2020), and Malikovna et al. (2022) that active learning pedagogy enhances student engagement in class, leading to improved student

outcomes and retention.

An Increased Desire to Achieve

FGCUs' ambitious educational goals were supported by embracing innovative teaching methods and expanding their desire to reap the benefits that HEIs could provide. Jackie said in her interview, when asked to explain how innovative content delivery keeps her motivated, "It's like showin' [*sic*] me that there's always room for growth, always more to learn. I feel like innovation has opened up so many doors for my future; I just have to stay focused and go where my heart is." My findings revealed that many students expressed the advantages of using innovation for learning, supporting their social interactions while enhancing their academic participation. During her interview, Lisa expressed, "…innovative academic programs…fostered a culture of collaboration and teamwork. Like through group projects, "...peer mentorship programs… I've had the opportunity to work alongside classmates and faculty…honing my teamwork skills along the way to prepare me for the next level." Lisa's statement supports the claims of Fjelkner-Pihl (2021) and Holt & Winter (2018) that first-generation students benefit academically and socially from interacting and studying with peer groups within an institution. Additionally, a network with peer support creates a sense of accountability to seek academic assistance when needed (Fjelkner-Pihl, 2021; Holt & Winter, 2018). In his interview, Bill said, "I found great academic clubs where we can connect with students from the same major and interest who have taken my class before that can help and give me tips." Bill's statement validates Dean (2015), Rienties & Tempelaar (2018) assertion that engaging in social interaction and networking with students can improve enhance academic experiences.

When asked to describe how she is motivated by innovative content delivery, Cathleen explained

I've always been an ambitious person. But seeing such innovation, seeing such different

programs, such different opportunities, it basically forces me to be like, I want to do those

things as well. I want to keep up with the crowd or the level that I'm supposed to be at

[*sic*].

This supports the claim made by Schreiner (2016) and Vetter et al. (2019) that institutions

promoting social connectedness through academic engagement contribute to student success.

This can be demonstrated through their retention rates, which can be assessed.

A Sense of Support through Various Channels

My finding confirmed that a close intermixing of social and academic elements motivated

FGCUs' longitudinal academic journey through the support structures embedded in HEIs.

Academic resources that also have a level of high social element, such as the writing center,

library, and tutoring centers, were identified as beneficial to keeping motivations high for

FGCUs. In his individual interview, Stanley explained how he stays motivated and copes with

balancing his academics. He said, "I attend academic workshops where we can learn new study

strategies, time management skills, and even how to deal with stress during exams." Rickford

uses "virtual study groups with classmates." In the group interview, Scott explained, "We've got

peer mentoring programs where we can connect with older students who can offer advice and

guidance." Regarding dealing with the stress of college life, Stanley said his school "…even

brought puppies and manicurists on campus during midterms…It's nice because you can tell

they are really trying to help us cope with college life." There is no doubt these programs have a

social element and corroborate Tinto's (1973) and Walton and Cohen's (2007) assertion that

HEIs that create programming to facilitate learning with students strengthen academic

achievement and bolster the student's connection to the larger campus community.

Implications for Policy or Practice

The findings of this study have implications for policy and practice related to faculty and administrators both locally and on the state and national levels. First, the section will discuss implications for policymakers within the Department of Education. Second, this section will examine the implications for HEIs. Recommendations will be made about the application of innovative strategies to foster more robust retention for FGCUs.

Implications for Policy

The study's results suggest an opportunity to transform academic freedom from a symbolic value, as established in Keyishian v. Board of Regents (Friedman, 2011), into an actual legal protection for faculty. It is important to ensure that all faculty, whether tenured or untenured, are provided with the necessary tools to facilitate active learning in innovative ways. With the competitive job market, the Department of Education should provide funding to support administrators in encouraging and challenging faculty to engage with students in ways that align more with students' career paths. The Department of Education should urge administrators to support and stretch faculty to think creatively to stimulate more active learning through innovative teaching methods. In the dynamic 21st century, where artificial intelligence is creating new ways to drive productivity, it is imperative for faculty to be at the forefront of this new technology and find ways to help their students understand its proper uses. Administrators and educators must shift their mindset and realize that innovation in the classroom must continue to evolve beyond what is available today. HEIs must create an ecosystem of innovation for students that holds true to the tenets of social and academic integration. For FGCUs, innovative educational content delivery supports active learning that augments FGCUs endurance, educational expectations, educational aspirations, and enriched motivation.

State legislators should examine the accreditation process for HEIs to ensure that accreditation and curriculum updates align more closely with market demands. Those institutions that prioritize innovative programming should be rewarded with increased state and federal funding. Curricula should incorporate more emerging technologies, and educators should be encouraged to explore innovative teaching methods that will resonate with their students. Educators should be supported and required to undergo regular training on emerging market trends.

Implications for Practice

The primary practice focuses on establishing an environment of innovation within HEIs, led by educators who are encouraged to bring innovative pedagogical methods to the classroom. These practices aim to promote active learning and increase student engagement through social and academic integration, ultimately fostering the development of transferable skills for the workplace and beyond. The objective is to improve student retention rates by reducing transfers and attrition. Administrators can incentivize faculty to incorporate innovative practices and tools that extend beyond the traditional classroom setting, leveraging real-world connections to support the development of problem-solving skills and cultivate independent thinkers who become contributors to society and the global market.

There are several ways to encourage persistence in FGCUs within HEIs. This undertaking requires a strong partnership between the faculty senate and administration. First, and ensuring FERPA guidelines are followed, the registrar should send faculty a rolling roster of the students they will teach for a semester, along with their demographic information, so the faculty can acclimate themselves to the dynamics of the student body within their class. This step is crucial because it will allow faculty to choose pedagogical strategies that best fit their

students' demographic along with their subject matter. Utilizing student-centered teaching methods like PBL (problem-based learning) introduces real-world complex problems (Tan, 2021), which stimulate higher-level thinking (Sonedi, 2021). Digital textbooks enhance learning by extending it beyond the confines of the classroom (Burk-Rafel et al., 2020). Open educational resources (OER) and e-textbooks contribute to affordability and accessibility (D'Ambra et al., 2022; Ozdemir & Hendricks, 2017). These approaches allow academic freedom, enabling instructors to design classes and employ innovative strategies tailored to subject matter, expertise, and student demographics. Finally, it is in the best interest of FGCUs that faculty utilize active learning pedagogy, which involves social experiences among students that integrate all levels of cognition. This approach can lead to positive outcomes and improved retention rates (Kovarik et al., 2022; Lombardi & Shipley, 2021; Malikovna et al., 2022; Shi et al., 2019; Talukder, 2020). The results of this study show that these strategies help foster deeper social and academic integration into a campus community, leading to persistence.

Empirical and Theoretical Implications

The study was based on Tinto's (1975) dropout theory and the theory of institutional departure (Tinto, 1973). These theories emphasize the importance of students' connection to a campus community through social and academic integration. The study aimed to examine the impact of innovative pedagogy on delivering educational content for FGCUs by focusing on social and academic integration and its effect on their persistence. The empirical implications were based on FGCUs' experiences with innovative educational content delivery. Theoretical implications were tied to Tinto's ideas supporting social and academic integration.

Empirical Implications

The experiences of the FGCUs were the basis for the findings of this study. The study revealed several important points. First, innovative academic content delivery facilitated social engagement and academic integration inside and outside the classroom. This engagement was evident in how students interacted with the content, sharing notes, and collaborating in study groups with their peers. There was no hesitation in participating in learning activities; this contradicts the current literature that suggests first-generation students lack collegiate norms, making them more susceptible to greater social estrangement in higher education (Garriott & Nisle, 2018; Green & Wright, 2017; McCallen & Johnson, 2020; Pratt et al., 2019). Another finding of the study is that FGCUs anticipate and sometimes actively seek out innovative teaching methods. Seeking methods not only improves their social and academic integration but also promotes active learning and enhances their engagement, leading to better student outcomes and retention (Bernacki, 2017; Crompton et al., 2020; Malikovna et al., 2022). In contrast to Mihelj et al.'s (2019) claim about the digital divide, the findings of this study demonstrate that FGCUs were capable of using various types of technology both in and out of the classroom without difficulty. While the existence of a digital divide is acknowledged, it did not appear to impede the study's participants. The students were excited about innovative academic content delivery and articulated its benefits in their educational experiences.

Theoretical Implications

The theoretical implication corroborates Tinto's (1975) dropout theory and the theory of institutional departure (Tinto, 1973). The experiences of the student participants confirmed the elements of Tinto's (1975) depiction of the broad spectrum of factors influencing a student's longitudinal educational journey to remain committed to an institution. Innovative delivery of

academic content supports Tinto's (1975) comprehensive approach to student success, involving a complex interaction of social, psychological, and behavioral factors to promote persistence. This study builds on Tinto's concepts by showcasing how innovative academic content delivery in the 21st century supports a diverse range of students as higher education continues to change and develop. As many HEIs continue to struggle with enrollment post-COVID-19, creating programs that promote more innovative academic content delivery for diverse populations, like FGCUs and other immigrants, will help drive their enrollment and create more opportunities for underserved populations in American higher education. This study demonstrates that creating an ecosystem of innovation for FGCUs will intrinsically encourage social and academic integration into a campus community, leading to increased retention, matriculation, and graduation.

Limitations and Delimitations

Limitations and delimitations arose in this study due to complications with the Internal Review Board at my original site. I amended my study through the Liberty University Internal Review Board and opened the study to the public. The study may have limitations that cannot be controlled, which could indicate areas of weakness. Delimitations are intentional constraints placed on the study due to opening it to the public. It is important to note that a case study will have both limitations and delimitations. It is an objective study comprised of the researchers' ideas and participants' abilities.

Limitations

There were several limitations within the study. The first limitation was around student demographics. There are 33 Caribbean countries, and my student participants represented 12% of the countries. A larger representation of the Caribbean countries would be valuable in determining if the results of the study would stay consistent with the findings. The study's

second limitation was that it was only open to FGCUs attending urban public universities in the Northeast after expanding the study from one to multiple campuses. The third limitation of the study was the limited time I was allowed to spend on the participants' campus to collect field notes about the campus environment. When I visited the campus, I had to inform security about my destination and the duration of my visit. I also had to sign in on a security sheet. It would have been interesting to explore the various locations on campus that the students had described, as each school may have a different setup. This would have allowed for an opportunity to compare the different campuses, providing deeper insight into how students access services while on campus. The fourth limitation was the absence of the freshman perspective. Their perspective may have provided deeper insight into the various ways their families encouraged them to attend an American university because they were so new to the higher education experience.

Delimitations

Since I opened the study to the public, I decided to interview students from my local neighborhood where I placed the flyers. I set age parameters for the participants, specifically focusing on students between the ages of 18 and 29 with at least 20 credits. Students who were interested in participating had to fill out the questionnaire (see Appendix D) to qualify. This decision was made to ensure that I only interviewed students with more than one semester of college experience who could provide relevant information about innovation on their respective campuses. Additionally, participants had to have an Edu email address to confirm they attended an accredited four-year institution.

Recommendations for Future Research

FGCUs and other immigrant populations will continue to pursue opportunities in America in the coming years. America symbolizes hope for immigrants. Many immigrants will find pathways to higher education and expect to encounter innovations inside and outside of the classroom that they have not seen or could afford in their country of origin. They desire to be successful and have high expectations of American secondary education. After completing their degree, they will seek to be challenged and prepared to be productive in society, whether in America or back in their home country.

In recent months, the number of immigrants seeking refuge in America has significantly increased in urban areas throughout America. Miami, Chicago, Houston, and Los Angeles have seen the largest increases, with California being amongst the most significant in the immigrant population. These increases have prompted lawmakers to reassess and reconsider accommodations and the potential impact of the influx of immigrant families on American society. As the immigrant population increases and young adults begin college, a quantitative study could assess the impact of innovative academic content delivery on the social and academic integration of immigrants in private institutions in California. As California has the largest immigrant population in America, this study would aim to understand how academic content delivery methods can support the integration of immigrants. This type of research can be used to quantify and validate the themes that emerged from my study to inform programming to help improve student retention using pedagogy that resonates with the immigrant population.

A phenomenology study could be used to investigate the experiences of educators who use innovative academic methods when creating curricula for students. Educators would be able to provide detailed, rich descriptions of their methods and how academic freedom plays a role in

their decision-making. Additionally, more qualitative research is needed to understand the motivations of high school students to pursue a college education. Hopefully, these studies will provide insight and inform higher education. This will help administrators and educators make programmatic changes to ensure that when students arrive on campus after graduating from high school, their expectations of college are met to help stabilize enrollments in higher education.

Conclusion

The purpose of this intrinsic case study was to understand how innovation across social and academic integration among FGCUs supports persistence at a public urban university in the Northeast. This study was guided by Tinto's (1975) dropout theory and the theory of institutional departure (Tinto, 1973), which focus on the various factors that impact a student's decision to stay committed to an institution. Tinto (1975) emphasized the importance of taking a comprehensive approach to student success, considering the complex interplay of social, psychological, and behavioral factors. This study focused on student experiences with innovative academic content delivery through social and academic integration. Data were collected through individual interviews, a focus group, and a letter prompt. All data were coded, analyzed, synthesized, and triangulated to reveal 4 themes that describe how innovative academic content delivery among FGCUs supports persistence. The overarching themes were endurance, educational expectation, educational aspiration, and educational motivation.

The findings reveal that FGCUs' engagement with innovative academic content delivery stimulates active learning, which intrinsically promotes social and academic integration to support persistence. Based on the student feedback, school leaders should continue to foster an environment that preserves faculty academic freedom and encourages them to use innovative content delivery strategies to positively influence FGCUs and all students they serve. FGCUs

enter college with high expectations that college in America will transform their lives by enhancing their college experiences. Overall, providing an opportunity to experience innovative pedagogy is one of the main reasons they remain engaged.

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Appendix A

Site Permission Request Letter

October 6, 2023

███████████

Assistant to the Dean, School of Business

████████████████████

███████████████████

███████████████

Dear ██████████,

As a graduate student in the School of Education at Liberty University, I am conducting research as part of the requirements for a Doctor of Education degree. The title of my research project is *Exploring the Role of Innovation Across Social and Academic Integration for First-Central Caribbean Undergraduate Persistence.* My research aims to understand the role innovation plays in these two areas of the undergraduate journey for Caribbean students.

I am writing to request your permission to conduct my research at ████████████████████ and contact first-generation Caribbean students with at least 20 credit hours to invite them to participate in my research study.

Participants will be asked to contact me to schedule a one-on-one interview, and 4-5 will be selected to participate in a focus group interview. In addition, you will be asked to write a letter to your younger self as a junior in high school about how innovation has shaped your academic journey. Participants will be presented with informed consent information prior to participating. Taking part in this study is entirely voluntary, and participants are welcome to discontinue participation at any time.

Thank you for considering my request. If you choose to grant permission, please respond by email to ██████████████████ A permission letter document is attached for your convenience.

Sincerely,

Angelina N. Carvalhal

Doctoral Candidate

Appendix B

IRB Approval Letter from Liberty University

LIBERTY UNIVERSITY.
INSTITUTIONAL REVIEW BOARD

December 15, 2023

Angelina Carvalhal
Sharon Farrell

Re: IRB Approval - IRB-FY23-24-742 EXPLORING THE ROLE OF INNOVATION ACROSS SOCIAL AND ACADEMIC INTEGRATION FOR FIRST-GENERATION CARIBBEAN UNDERGRADUATE PERSISTENCE

Dear Angelina Carvalhal, Sharon Farrell,

We are pleased to inform you that your study has been approved by the Liberty University Institutional Review Board (IRB). This approval is extended to you for one year from the following date: December 15, 2023. If you need to make changes to the methodology as it pertains to human subjects, you must submit a modification to the IRB. Modifications can be completed through your Cayuse IRB account.

Your study falls under the expedited review category (45 CFR 46.110), which is applicable to specific, minimal risk studies and minor changes to approved studies for the following reason(s):

7. Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies. (NOTE: Some research in this category may be exempt from the HHS regulations for the protection of human subjects. 45 CFR 46.101(b)(2) and (b)(3). This listing refers only to research that is not exempt.)

For a PDF of your approval letter, click on your study number in the My Studies card on your Cayuse dashboard. Next, click the Submissions bar beside the Study Details bar on the Study Details page. Finally, click Initial under Submission Type and choose the Letters tab toward the bottom of the Submission Details page. Your stamped consent form(s) and final versions of your study documents can be found on the same page under the Attachments tab. Your stamped consent form(s) should be copied and used to gain the consent of your research participants. If you plan to provide your consent information electronically, the contents of the attached consent document(s) should be made available without alteration.

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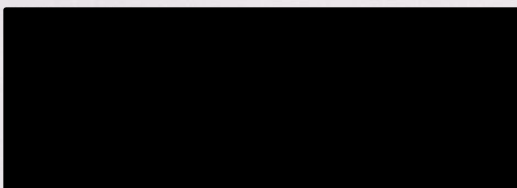
Sincerely,

G. Michele Baker, PhD, CIP
Administrative Chair
Research Ethics Office

Appendix C

## Site Approval Letters & Recruitment Flyer

February 21, 2024

████████████████████████

To Whom It May Concern,

This letter grants Angelina Carvalhal permission to display her dissertation recruitment flyer within the P████████████ Center. We acknowledge the importance of Ms. Carvalhal's academic endeavors and are pleased to accommodate her request to utilize our community space to recruit potential participants.

The flyer, specifically designed to attract and inform interested individuals about her scholarly research, "Exploring the Role of Innovation Across Social and Academic Integration for First-Generation Caribbean Undergraduate Persistence," will be posted for thirty days.
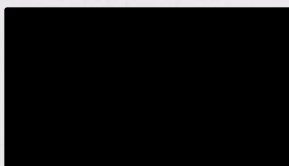
We extend our best wishes to Ms. Carvalhal for a successful recruitment campaign and anticipate the insightful contributions her dissertation will provide to the academic community and beyond.

Regards,

████████████████████████
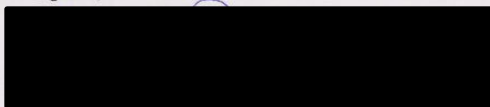
Center Director

February 20, 2024

█████████

To whom it may concern:

As a supporter of academics in the community, ████ is pleased to assist Angelina Carvalhal in her pursuit of knowledge and contribution to the scholarly community. By allowing her to display her recruiting flyer at my business location for 1 month, I hope to facilitate her in attracting the participants she needs for her study, "Exploring the Role of Innovation Across Social and Academic Integration for First-Generation Caribbean Undergraduate Persistence."

█████████
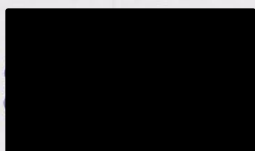
Manager

Dissertation Study

If you're a first-generation Caribbean undergraduate aged 18-29, this study could be a perfect fit for you.

I am looking for first generation Caribbean undergraduates with a minimum of 20 credit hours to participate in my study, "Exploring the role of innovation across social and academic integration for first generation Caribbean undergraduate persistence."

All interviews and activities will be conducted via Zoom.

This research aims to understand how innovative content delivery affects the retention of first generation Caribbean undergraduates.

Participants will receive a $25 Target gift card for completing the individual interview and writing prompt.

Participants will be asked to participate in
* 45 minute individual interview
* 30 minute writing letter prompt
*45 minute focus group based on availability

Participants who participate in the focus group will receive a $25 Target gift card.

If you are interested in participating in the study, email or call :
Angelina Carvalhal

Appendix D

Student Questionnaire

Please place a check mark next to the applicable answer to be considered eligible to participate in the study. All answers are confidential. Please email the completed questionnaire to ████████████████ You will be contacted via email with a student recruiting email and consent form within 24 hours of submitting the questionnaire if you are chosen to participate in the study. Should you have any questions, contact Angelina N. Carvalhal at ███████████████ Thank you.

1. Were you born in the USA?   Yes_____   No_____

2. If you answered no to question 1; is your family from a Caribbean country? Yes___ No___

3. Are you the first in your family to attend college? Yes___ No_____

4. Are you from a Caribbean country? Yes___ No___

5. If you answered yes to question 4, what is the name of country? _____

6. What is your ethnicity? Black___ Latino___ other_____

7. Have you completed at least 20 credit hours? Yes_ No___

8. Are you a commuter student? Yes___ No___

9. Have you used digital course materials in any of your classes? Yes___ No___

Appendix E

Student Recruiting Email

Dear Student,

As a graduate student in the School of Education at Liberty University, I am conducting research as part of the requirements for a Doctor of Education degree. The purpose of my research is to understand how innovation across social and academic integration for first-generation Caribbean Undergraduates supports persistence, and I am writing to invite eligible participants to join my study.

Participants must be 18 or older, first-generation Caribbean, enrolled at ███████████ ████████, and earned at least 20 credit hours. If willing, participants will be asked to participate in a one-on-one recorded virtual or in-person interview, and 4-5 participants will be selected for a focus group discussion. It should take approximately 45 minutes to complete each procedure listed. In addition, you will be asked to write a letter to your younger self as a junior in high school about how innovation has shaped your academic journey. The documentation will take approximately 20 minutes to write and collect. Participants will be asked to perform a member check by confirming the accuracy of the recorded interview transcription within eight days of receipt of the interview transcription. Likewise, participants will be asked to perform a member check by confirming the accuracy of the recorded focus group transcription within eight days of receipt of the focus group transcription. The in-person interviews and focus group discussion transcriptions will be completed for a member check review within 72 hours following the sessions. Participants will take approximately 15 minutes or less to complete the review of their transcripts. Names and other identifying information will be requested for this study, but the information will remain confidential.

If you choose to participate, you will need to sign the consent form and return it to me at the time of the one-on-one interview/focus group. Please contact me at ███████████████ or at ███ ████████ for more information to schedule the one-on-one interview and /or focus group session; please sign and return the attached consent.

A consent document is attached to this email for potential participants expressing an interest in participating. The consent document contains additional information about my research. If you choose to participate, you will need to sign the consent document and return it to me before the one-on-one interview/ focus group sessions.

Participation in this study is voluntary, and there is no compensation.

Sincerely,
Angelina N. Carvalhal
Doctoral Candidate

Appendix F

Student Participation Consent Form

Consent

Title of the Project: Exploring the role of innovation across social and academic integration for first-generation Caribbean undergraduate persistence
Principal Investigator: Angelina N. Carvalhal, Doctoral Candidate, Liberty University, School of Education., Liberty University

Invitation to be Part of a Research Study

You are invited to participate in a research study. To participate, you must be 18 years or older, first-generation Caribbean, enrolled at ███████████████, and have earned at least 20 credit hours. Taking part in this research project is voluntary.

Please take time to read this entire form and ask questions before deciding whether to take part in this research.

What is the study about and why is it being done?

The purpose of the study aims to examine the impact of innovation across social and academic integration for first-generation Caribbean undergraduate persistence at a public university in the northeast.

What will happen if you take part in this study?

If you agree to be in this study, I will ask you to do the following:
1. **Participate in an individual interview**: Participate in an in-person, audio-recorded or Zoom-recorded interview that will take no more than 45 minutes.
2. **Focus Group interview**: Participate in a focus group interview, audio-recorded or Zoom-recorded interview that will take no more than 45 minutes.
3. **Letter writing**: Participants will be requested to write a 400-word letter to themselves as a junior in high school about their experience(s) with the phenomenon. The writing session should take no more than 30 minutes.

How could you or others benefit from this study?

Participants should not expect to receive a direct benefit from taking part in this study.

Your participation may significantly contribute to the future of incorporating additional innovation through social and academic integration to achieve better persistence for students from first-generation backgrounds.

What risks might you experience from being in this study?

The risks involved in this study are minimal, which means they are equal to the risks you would encounter in everyday life.

How will personal information be protected?

The records of this study will be kept private. Published reports will not include any information that will make it possible to identify a subject. Research records will be stored securely, and only the researcher will have access to the records. Data collected from you may be shared for use in future research studies with other researchers. If data collected from you is shared, any information that could identify you, if applicable, will be removed before the data is shared.

- Participant responses will be kept confidential by replacing names with pseudonyms.
- Individual interviews will be conducted in a location of your choosing, whether on or off school campus or virtually, where others will not easily overhear the conversation.
- Confidentiality cannot be guaranteed in focus group settings. While discouraged, other members of the focus group may share what was discussed with people outside of the group.
- Letter writing will be kept confidential by replacing names with pseudonyms.
- Data collected from you may be shared for use in future research studies with other researchers. If data collected from you is shared, any information that could identify you, if applicable, will be removed beforehand.
- Data will be stored on a password-locked computer, and letters will be stored in a locked file cabinet. After three years, all electronic records will be deleted, and all hardcopy records will be shredded.
- Recordings will be stored on a password-locked computer for three years until participants have reviewed and confirmed the accuracy of the transcripts and then deleted. The researcher and members of her doctoral committee will have access to these recordings.

How will you be compensated for being part of the study?

Participants will not be compensated for participating in this study.

Is study participation voluntary?

Participation in this study is voluntary. Your decision whether to participate will not affect your current or future relations with Liberty University. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships.

What should you do if you decide to withdraw from the study?

If you choose to withdraw from the study, please contact the researcher at the email address/phone number included in the next paragraph. Should you choose to withdraw, data collected from you, apart from focus group data, will be destroyed immediately and will not be included in this study. Focus group data will not be destroyed, but your contributions to the focus group will not be included in the study if you choose to withdraw.

Whom do you contact if you have questions or concerns about the study?

If you have questions later, **you are encouraged** to contact Angelina N. Carvalhal at ██████
███ or email at ████████████████ You may also contact the researcher's faculty sponsor,
Dr. Sharon Farrell████████████████

Whom do you contact if you have questions about your rights as a research participant?

If you have any questions or concerns regarding this study and would like to talk to someone
other than the researcher, **you are encouraged** to contact the IRB. Our physical address is
Institutional Review Board,███
███

*Disclaimer: The Institutional Review Board (IRB) is tasked with ensuring that human subjects
research will be conducted in an ethical manner as defined and required by federal regulations.
The topics covered and viewpoints expressed or alluded to by student and faculty researchers
are those of the researchers and do not necessarily reflect the official policies or positions of
Liberty University.*

Your Consent

By signing this document, you are agreeing to be in this study. Make sure you understand what
the study is about before you sign. You will be given a copy of this document for your records.
The researcher will keep a copy with the study records. If you have any questions about the study
after you sign this document, you can contact the study team using the information provided
above.

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

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

_____
Printed Subject Name

_____
Signature & Date

Appendix G

IRB Modification

LIBERTY UNIVERSITY.
INSTITUTIONAL REVIEW BOARD

March 4, 2024

Angelina Carvalhal
Sharon Farrell

Re: Modification - IRB-FY23-24-742 EXPLORING THE ROLE OF INNOVATION ACROSS SOCIAL AND
ACADEMIC INTEGRATION FOR FIRST-GENERATION CARIBBEAN UNDERGRADUATE PERSISTENCE

Dear Angelina Carvalhal, Sharon Farrell,

The Liberty University Institutional Review Board (IRB) has rendered the decision below for IRB-FY23-24-742
EXPLORING THE ROLE OF INNOVATION ACROSS SOCIAL AND ACADEMIC INTEGRATION FOR
FIRST-GENERATION CARIBBEAN UNDERGRADUATE PERSISTENCE.

Decision: Approved

Your request to make the following changes to your study has been approved:

1. Compensate focus group participants by giving them an additional $25 Target gift card,
2. Adjust your participant criteria to restrict participants to individuals between 18 and 29 years of age, reduce
   the college credits requirement from 30 credits to 20, and no longer require participants to be enrolled in the
   Caribbean Studies Department at ▮▮▮▮▮▮▮▮
3. No longer use email to recruit participants but instead utilize a flyer, and
4. Conduct the study procedures in a location of the participants' choice

Thank you for submitting your revised study documents for our review and documentation. **For a PDF of your
modification letter, click on your study number in the My Studies card on your Cayuse dashboard. Next, click the
Submissions bar beside the Study Details bar on the Study Details page. Finally, click Modification under
Submission Type and choose the Letters tab toward the bottom of the Submission Details page. If your modification
required you to submit revised documents, they can be found on the same page under the Attachments tab.** Your
stamped consent form(s) should be copied and used to gain the consent of your research participants. If you plan to
provide your consent information electronically, the contents of the attached consent document(s) should be made
available without alteration.

Thank you for complying with the IRB's requirements for making changes to your approved study. Please do not
hesitate to contact us with any questions. We wish you well as you continue with your research.

Sincerely,

G. Michele Baker, PhD, CIP
Administrative Chair
Research Ethics Office

Appendix H

Audit Trail

Instrument Development Information 3/4/24-3/5/24	The IRB approval, recruitment flyer, and permission letter to hang recruitment were saved electronically in iCloud. Hard copies were stored in a folder in a locked file cabinet.
Consent 3/6/24-4/2/24	Signed consent forms were collected and scanned. Electronic copies were saved in iCloud. Paper copies of consent forms were stored in a folder in a locked file cabinet.
Raw Data 3/8/24-4/5/24	Individual Interviews and Focus Group Interviews were recorded with two electronic devices for redundancy, and files were transferred and stored in my Nvivo account. Letters were uploaded and stored in my Nvivo account. Spreadsheets of students' email addresses are stored in iCloud. Copies of consent were scanned and stored in iCloud. My Macbook is password-protected with two-way authentication.
Data Analysis Documents 3/8/24-4/5/24	Field notes and memos were collected by hand in a notebook, which is protected in a locked file cabinet.
Notes and Memos 3/8/24-4/5/24	Memos with the process coding were placed in a notebook in a locked cabinet.
Data Reconstruction Analysis Triangulation and Synthesis Products 4/12/24-4/25/24	Interviews were transcribed with Nvivo and stored electronically in my password-protected MacBook. They were also printed, and First-cycle versus coding was done by hand on them. The codes were uploaded into Nvivo. Printed transcriptions are in a locked file cabinet. Focus Group was transcribed with Nvivo using attribute coding. Letter prompts were uploaded to Nvivo using descriptive coding. All letters are stored in a locked cabinet. Second cycle codes were completed in Nvivo for all three data collection types. Memoing used process coding which occurred for all three data collection types. Data Synthesis produced thematic codes that triangulated internal and external validity. All electronic data were stored in Nvivo on my password protected MacBook.