2021

Differences in Students' First-Year Composition Grades Based on First-Year Composition Instructors' Employment Status

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This is to certify that the doctoral study by

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Abstract

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by

Karen Mariana Lynn

MA, Salisbury University, 2013

BS, Salisbury University, 2011

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Education

Walden University

June 2021

Abstract

The problem addressed in this study was the trend of decrease in first-time-in-college (FTIC) degree-seeking student cohort fall-to-fall (FTF) retention rates at a community college located in a southern state. Reversing the trend of decrease in FTIC FTF retention rates requires determining factors that may have influenced the trend. Researchers have found instructor employment status and gateway course success may influence student achievement and therefore can affect student retention. At the research site, most FTIC students take first-year-composition (FYC), the gateway English course for most community colleges, from adjuncts. The purpose and research question of the study were to determine if statistically significant differences existed in FYC semester course grades among FTIC degree-seeking students who took FYC from adjuncts compared to full-time faculty members at the research site. Communities of practice was the theoretical foundation in this causal comparative design. Proportional stratified random sampling was used to select 200 FTIC degree-seeking students from each of the 2016, 2017, and 2018 cohorts. A two-way analysis of covariance indicated statistically significant differences in FYC semester course grades existed based on FYC instructor employment status while controlling for student enrollment status and academic ability. Ideally, positive social change will be realized through enhanced institutional efforts to support FYC adjunct faculty, which in turn may lead to increased retention rates, resulting in a greater number of students who are empowered and equipped to positively influence future generations.

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Dedication

This work is dedicated first to my family. To my amazing daughter Rose, thank you for the encouragement during tough times. I hope that I have set the example that with effort and dedication, no goal is insurmountable. To my equally amazing husband Mike, thank you for giving me the time I needed to “do me”. To my gym family, Iron Knight Gym, thank you for helping me develop skills as a powerlifter that have universal application, even in education.

Acknowledgments

My favorite quote is “True ease in writing comes from art, not chance, As those move easiest who have learned to dance” from Alexander Pope’s *Essay on Criticism.*

I would like to acknowledge Dr. Deborah Focarile and Dr. Sherry Lowrance for teaching me *to dance*. Although there were times we seemed to be out of rhythm and I felt like I had 2 left feet, you were both patient while I worked through missteps. I will be forever grateful for your support and guidance.

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Chapter 1: Introduction to the Study

Historically, the community colleges in the United States, initially created to expand access to higher education, have experienced poor student achievement outcomes, including low retention rates (Bailey et al., 2015). According to the National Center for Education Statistics (NCES; 2019), nationally, community college retention rates have remained around 60% in recent decades, with only six out of every 10 students who began the first year of the academic career at a community college beginning the second year of the academic career. When comparing the influence of adjunct and full-time faculty on student success, researchers have documented greater long-term student success from full-time faculty over adjunct faculty (Goldstene, 2015; Kimmel & Fairchild, 2017; Ran & Sanders, 2019). Researchers have also documented the influence success in gateway courses, like first-year composition (FYC), have on future student success (Nicholes & Reimer, 2020) and retention rates (Combs, 2016; Flanders, 2017). Ideally, social change will be realized through enhanced institutional efforts to support FYC adjunct faculty, which in turn may lead to increased retention rates, resulting in a greater number of students who are empowered and equipped to positively influence future generations.

In Chapter 1, background related to the scope of the study, a description of the problem the study addressed, the purpose of the study, and the research question (RQ) and hypotheses that guided the study are presented. Additionally, the theoretical foundation for the study, the nature of the study, and definitions of key terms and variables are presented. Last, the assumptions, scope, delimitations, limitations, and significance of the study are described.

Background

Community colleges were designed to increase access to higher education for a diverse student population (Jacobs & Worth, 2019). Each year, roughly 2 million people begin the first year of the college career for the first time (National Student Clearinghouse Research Center, 2019). Historically, only 60% of those 2 million people begin the second year of their college career (NCES, 2019). As documented in student achievement reports posted on its website, a local community college (LCC; pseudonym), located in a southern U.S. state experienced a 7.2% decrease over 3 years in the percentage of students who began the first year of the academic career in a fall semester, completed the first year, and began the second year the following fall semester.

The public and policy makers' dissatisfaction with student achievement outcomes, including completion rates, has led public policy makers to increase the accountability of post-secondary institutions (Bailey et al., 2015). Fall-to-fall (FTF) retention rates and gateway course success rates are two indicators of student achievement now monitored by post-secondary institutions and reported to their respective state's department of education (Belfield et al., 2019). FTF retention rates reflect the percentage of students who began the first year of the academic career in the fall semester and began the second year of the academic career the following fall semester (Burke, 2019). A gateway course is the first course a student takes that provides transferable college-level credit, allowing a student to progress in a program of study (Flanders, 2017; Nicholes & Reimer, 2020). FTF retention rates are influenced in part by academic success in gateway courses such as FYC (Flanders, 2017; Matthews & Newman, 2017; Nicholes & Reimer, 2020). FYC is

the designated gateway English course in most states (Combs, 2016; Flanders, 2017; Nicholes & Reimer, 2020), including the state where LCC is located.

To increase student success, many community colleges have adopted the guided pathways model (Bailey et al., 2015). At guided pathways institutions, first-time-in-college (FTIC) degree-seeking students typically take FYC at or near the beginning of the academic career (Jenkins et al., 2018). During the first year of enrollment, FTIC community college students typically face challenges related to conceptual learning and metacognitive skills (Bailey et al., 2015). Furthermore, many FTIC students are unaware of support services available to help them overcome these challenges (Bailey et al., 2015). In other words, many FTIC students are having to learn complex content while learning the complexities of college.

In addition to high FTIC student populations, community colleges typically have high adjunct faculty populations. Adjunct faculty is the fastest-growing segment of the professorate in higher education, making up nearly 52% of the national professorate (Buch et al., 2017). Adjunct faculty make up roughly 70% of the community college professorate (Ott & Dippold, 2018; Ran & Sanders, 2019) and teach the majority of course sections (Ran & Sanders, 2019). Compared to full-time faculty at the same institution, FYC adjunct faculty typically operate with minimal knowledge and access to instructional and institutional resources (Dougherty et al., 2016; Schmidt, 2015). Adjunct faculty also typically receive limited course content and management direction (Bickerstaff & Chavarín, 2018; Gehrke & Kezar, 2015).

Because student learning is fundamental to LCC's mission, English department faculty are charged with directing the learning enterprise to ensure the inclusion of

essential curricular components, appropriate content and pedagogy, and discipline currency across FYC course sections. According to researchers, ensuring the inclusion of essential curricular components, appropriate content and pedagogy, and discipline currency across course sections are best accomplished through collaboration that includes transparency, relationship building, integration, assessment, and reflection (Graziano et al., 2016; Severs, 2017). FYC adjunct faculty at LCC are excluded from departmental collaboration primarily due to their employment status, constituting a gap in practice (Goldstene, 2015; Thirolf, 2017; Witt & Gearin, 2020).

The lack of consistency across and within FYC course sections resulting from the exclusion of FYC adjunct faculty from departmental collaboration may negatively influence student success (Goldstene, 2015; Thirolf, 2017; Witt & Gearin, 2020). Researchers have established a link between FYC course success and the problem of retention (Belfield et al., 2019; Center for Community College Student Engagement [CCCSE], 2017; Flanders, 2017; Juszkiewicz, 2017; Nicholes & Reimer, 2020). Therefore, it is important to explore a factor that may influence FYC course success: the influence of FYC instructor employment status on the success of FTIC degree-seeking students. As such, this factor was explored in the study.

Problem Statement

The problem that was addressed through the study was the decrease in FTF retention rates of FTIC degree-seeking student cohort at LCC. LCC is a large, open-enrollment public community college with an annual enrollment of approximately 18,000 undergraduate students. LCC serves five counties in a southern state. As documented in student achievement reports on LCC's website, FTF retention rates for LCC's FTIC

degree-seeking student population decreased by 7.2% over 3 years. FTF retention rates at LCC for the 2016 cohort were 71.2%, decreased to 64.2% for the 2017 cohort, and further decreased to 64% for the 2018 cohort.

As described in student achievement reports posted on LCC's website, to monitor performance related to its focus on student achievement, LCC identified FTF retention rates for FTIC degree-seeking students as an indicator of student achievement. FTF retention rates are influenced in part by academic success in gateway courses like FYC (Flanders, 2017; Matthews & Newman, 2017). Gateway course success rates are monitored by the southern state's department of education and LCC to indicate student achievement at or near the beginning of the academic career. FYC is the designated gateway English course in the state where LCC is located. Because LCC is a guided pathways institution, FTIC degree-seeking students typically take FYC at or near the beginning of the academic career, at the same time they are learning the complexities of college.

Like most of the nation's community colleges, the English department at LCC has a large FYC adjunct population (see Ott & Dippold, 2018; Ran & Sanders, 2019). During a March 8, 2018 conversation, the LCC English department chair who served during the 2016 and 2017 academic years stated that, of the approximately 5,000 students who enroll in FYC each academic year across roughly 200 course sections, most of them are taught by adjunct faculty. The former English department chair also stated that there was an increase in FYC course sections taught by adjuncts during the 2016 through 2018 academic years over previous academic years. During the December 17, 2019 English department meeting, the current department chair and academic dean explained that

reliance on FYC adjuncts is expected to continue as full-time instructional vacancies would not be filled in the foreseeable future.

Because student learning is fundamental to LCC's mission, English department faculty are charged with directing the learning enterprise to ensure the inclusion of essential curricular components, appropriate content and pedagogy, and discipline currency across FYC course sections. According to researchers, consistency across course sections is best accomplished through collaboration that includes transparency, relationship building, integration, assessment, and reflection (Graziano et al., 2016; Severs, 2017). Within the English department at LCC, collaboration occurs primarily through department meetings and workgroup participation. Beginning with the Fall 2018 semester, adjunct faculty were invited to attend English department general meetings. However, their role was limited to observation without collaboration, and adjuncts were excluded from workgroup participation by departmental rule.

Adjunct faculty engagement and integration are crucial to student success (Thirolf, 2017). FYC adjunct faculty face challenges because they typically operate with minimal knowledge and access to instructional and institutional resources (Dougherty et al., 2016; Schmidt, 2015). Additionally, adjuncts receive limited course content and management direction (Bickerstaff & Chavarín, 2018; Gehrke & Kezar, 2015). The influence on student success of the practice of excluding FYC adjunct faculty from collaboration at LCC merited exploration. The exclusion of adjunct faculty from collaboration leads to disparities in student learning (Goldstene, 2015; Thirolf, 2017; Witt & Gearin, 2020). During a meeting with an LCC administrator on March 22, 2017, the administrator stated that the exclusion of FYC adjunct faculty is problematic as it leads to

an English department in which the inclusion of essential curricular components, appropriate content and pedagogy, and discipline currency is uncertain across and within course sections. The identified gap in practice may have influenced the problem of decrease in FTF retention rates at LCC because retention rates are influenced by success in gateway courses, such as FYC (see Belfield et al., 2019; Flanders, 2017; Nicholes & Reimer, 2020). FTIC students encounter challenges during their first year of enrollment such as potentially being academically underprepared for college and unable to effectively balance their academic and nonacademic lives (Bailey et al., 2015; Herder, 2018; Melzer & Grant, 2016). The majority of FTIC students take FYC from adjuncts (Ott & Dippold, 2018; Ran & Sanders, 2019) who also encounter challenges such as minimal knowledge and access to institutional and instructional resources (Bakley & Brodersen, 2018; Bickerstaff & Chavarín, 2018; Witt & Gearin, 2020) and unfamiliarity with learning outcomes and programmatic goals (Callier et al., 2015; Cydis et al., 2017). Some of the challenges FYC adjuncts encounter may be influenced by their exclusion from departmental collaboration.

Purpose of the Study

Student achievement may be influenced by instructor employment status (Ran & Sanders, 2019; Severs, 2017; Thirolf, 2017) as well as gateway course success (Belfield et al., 2019; Flanders, 2017; Matthews & Newman, 2017; Council of Writing Program Administrators [CWPA] et al., 2011; Woods et al.,2019). FYC is a gateway course taught mostly by adjunct faculty at LCC. Thus, the purpose of the quantitative study was to determine if statistically significant differences in FYC semester course grades existed among FTIC degree-seeking students at LCC who were in adjunct and full-time faculty

FYC course sections. Therefore, a quantitative analysis of data pertaining to FYC semester course grades for FTIC degree-seeking students who were in the 2016 through 2018 cohorts at LCC was conducted. The dependent variable (DV) was FYC semester course grades, the first independent variable (IV_1) was FYC instructor employment status (adjunct or full-time), IV_2 was student enrollment status (part-time or full-time), and the covariate (CV) was academic ability. A more detailed description of the variables is provided in the next section.

Research Question and Hypotheses

The RQ addressed the problem of the trend of decrease in FTIC degree-seeking student cohort FTF retention rates as a possible result of excluding FYC adjunct faculty from collaboration at LCC. The following RQ guided the study:

RQ: What is the difference in FYC semester course grades among FTIC degree-seeking students who took FYC from adjuncts and full-time faculty members?

Null Hypothesis (H_0): There is no statistically significant difference in FYC semester course grades among FTIC degree-seeking students who took FYC from adjuncts and full-time faculty members.

Alternative Hypothesis (H_a): There is a statistically significant difference in FYC semester course grades among FTIC degree-seeking students who took FYC from adjuncts and full-time faculty members.

A two-way analysis of covariance (ANCOVA) determined the extent of differences that may have existed in FYC semester course grades according to FYC instructor employment status (adjunct or full-time) while controlling for students' enrollment status (part-time or full-time) and academic ability. Academic ability was

measured using composite test scores from the Postsecondary Education Readiness Test (PERT), the standardized college placement test used in the state where LCC is located. The DV was FYC semester course grades, IV_1 was FYC instructor employment status (adjunct or full-time), IV_2 (as a control) was student enrollment status (part-time or full-time), and the covariate was academic ability.

Theoretical Foundation

The theoretical foundation for the study was Lave and Wenger's communities of practice (CoP). CoP is based on the concept of social learning occurring within communities of professionals who share a common goal, domain of interest, and engage in collaboration that leads to professional growth in all community members (Hoyert & O'Dell, 2019; Lave & Wenger, 1991). CoPs work by providing opportunities to network, thereby enhancing the understanding of what others in the field are doing (Lee et al., 2015). Because CoPs encourage transformative dialogue, CoPs provide effective avenues for mutual learning, understanding, and accountability among community members (Mtika & Kistler, 2017).

Within education, CoP has been used as a foundation to research student learning and professional development. Roberts and Sayer (2017) found that creating CoPs within the classroom enhanced active and situated learning. Carney et al. (2016) found that CoPs were vital to the scholarship of teaching and learning because CoPs enhanced the scholarly production and pedagogical effectiveness of faculty. Hoyert and O'Dell (2019) noted that CoPs provide effective venues for faculty to gain information about institutional values and goals, both of which should guide pedagogical practice.

Lave and Wenger's CoP was influential in framing the approach and RQ of the study. CoP as a theoretical foundation can be used to understand the influential role of collaboration in the professional development of FYC faculty. As indicated in the problem statement, adjunct faculty are typically excluded from collaborative professional development opportunities where they can access instructional and institutional resources, which can lead to disparities in student learning. The RQ was designed to address the influence of employment status, FYC adjunct faculty and FYC full-time faculty, had on students' FYC semester course grades. A more detailed explanation of CoP is provided in Chapter 2.

Nature of the Study

The nature of the study was quantitative with a casual comparative design. Casual comparative design is used to determine differences between or among groups without the manipulation of IVs (Fulmer, 2018). The use of casual comparative design allows researchers to conclude that groups differ with respect to the IV(s), without concluding that the IV(s) caused the difference (Fulmer, 2018). A casual comparative design was appropriate for the study because the purpose of the study was to determine differences that existed among groups without the manipulation of variables, not the cause of differences. Archival deidentified data were collected from the research site, LCC. Data collected for the study included FYC semester course grades for the population under study as the DV, with FYC instructor employment status (adjunct or fulltime) as IV_1, student enrollment status (part-time or full-time) as IV_2, and students' academic ability as the CV. Data analysis procedures included a two-way ANCOVA. A two-way ANCOVA is used to explain the nonrandom association between the variables while controlling for

extraneous variation (Anderson, 2018). Use of a two-way ANCOVA for the study removed the unexplained error of variance of academic ability.

Definitions

Adjunct faculty members: Part-time, nontenure track faculty who are employed on a semester-to-semester basis (Bickerstaff & Chavarín, 2018; Ott & Dippold, 2018).

Collaboration: The interaction among a group of professionals that includes transparency, relationship building, integration, assessment, and reflection (Graziano et al., 2016; Severs, 2017).

Fall-to-fall (FTF) retention rates: The percentage of students who completed the first year of the academic career and began the second year of the academic career (Burke, 2019).

First-time-in-college (FTIC) student: A student who has never attended college, although he or she may have earned college credit through high school dual enrollment (Margarit & Kennedy, 2019).

First-year-composition (FYC): The introductory college-level composition course intended to teach the necessary components of college-level writing (Belfield et al., 2019; CWPA, 2019; Woods et al., 2019).

Full-time faculty: Faculty who teach a full credit load per semester and are employed on an annual contractual basis (Bickerstaff & Chavarín, 2018; Ott & Dippold, 2018).

Full-time student: A student who enrolls in 12 credit hours during a semester (NCES, 2020).

Gateway course: The first course a student takes that provides transferable, college-level, credit allowing a student to progress in a program of study (Flanders, 2017; Nicholes & Reimer, 2020).

Part-time student: A student who enrolls in less than twelve credit hours during a semester (NCES, 2020).

Assumptions

Researchers are often concerned about how assumptions influence the validity of the research process (Levitt et al., 2018). I identified three assumptions that were critical to the meaningfulness of the study. It was assumed that the sample used in the study was representative of the larger population of FTIC degree seeking students from the 2016 through 2018 cohorts who took FYC while attending LCC. The assumption of representativeness was necessary to generalize study findings, which were based on the sample, to the larger population under study (Bornstein & Jajer, 2018). The second assumption, characteristic in casual comparative design, was that the two groups being compared were equivalent, with the only difference between or among the groups being the variable of interest (Fulmer, 2018). To establish academic equivalence of the groups that were compared in the study, the composite PERT scores were applied on the study groups and will be discussed in greater detail in chapter four. In the study, FYC semester course grades of FTIC degree-seeking students who took FYC from adjunct faculty were compared to FTIC degree-seeking students who took FYC from full-time faculty. The third assumption, as results of the study depended on the quality of data provided, was that data provided by the study site were accurate and complete.

Scope and Delimitations

The study was limited to FYC semester course grades earned by students at a community college located in a southern state. The scope of data collection and analysis was an examination of the effect of FYC instructor employment status on FYC semester course grades. The study was limited to FYC semester course grades for a specific population of students who were part of specific cohorts.

Limitations

This quantitative study had three limitations related to design. The first design limitation of the study was the location of the study. Data were collected from a community college located in a suburban area of a southern U.S. state. This limitation was selected to narrow the scope of the study. The second design limitation was the study was confined to an introductory course in a specific discipline which also serves as the designated gateway course for that discipline. This limitation was selected to further narrow the scope of the study. Future studies can include introductory courses from other disciplines. The third design limitation of the study was the criteria applied to the sample for the study. The sample for the study only included FTIC degree-seeking students. This limitation was selected because FTIC student data are often used as the basis for institutional improvement efforts (Belfield et al., 2019; Jenkins et al., 2018). Future studies can include other student populations. Because of the design limitations, the results of the study may not be generalizable to institutions that do not share demographics with the study site, including type and location of institution, or whose participants are other than FTIC degree-seeking students who took a gateway course in the same discipline as the sample used in the study.

This quantitative study had one limitation related to methodological weakness. The methodological weakness of the study was that a casual comparative design was used. A casual comparative design only allows researchers to conclude that differences among or between groups exist, not if or to the degree that variables caused the differences among or between groups (Fulmer, 2018). This limitation was selected to narrow the focus of the study to determining differences. Future studies can include explorations of the cause or effect of those differences.

Significance

The study addressed a local problem as its focus was examining the relationship between the employment status of FYC instructors and the academic success of FTIC degree-seeking students at LCC. The study is unique because it addressed the underexplored area of the influence of gateway course adjunct faculty on student success in higher education (Ran & Sanders, 2019). The results of the study will provide insight for LCC regarding a factor that may influence the academic success of its FTIC degree-seeking student population, including FTIC degree-seeking student retention rates. Given the role of writing in academia (Combs, 2016; CWPA, 2019; CWPA et al., 2011; Getchell & Lentz, 2020; Selwyn & Renaud-Assemat, 2020; Simons, 2017; Varelas et al., 2015), insights gained from the study should support LCC's efforts to provide FYC instructors who are prepared to help students create a solid foundation upon which to not only build their academic careers, but equip students well enough that students continue enrollment until completion of their programs.

Education has historically been linked to positive social change (McMahon, 2018). Positive social change is commonly understood as contributions to the common

good through a variety of mediums. Social change manifests itself in several ways, including the empowerment of individuals and communities. Empowerment involves a functional perspective which includes equipping individuals with necessary skills to perform functional tasks, a psychological perspective which is related to giving individuals a voice and increasing their self-esteem and self-confidence, and a critical perspective which involves heightened awareness of the causes of perceived injustices and actions to address them (Krupar & Prins, 2016). The study will contribute to positive social change. Positive social change will be realized as the study may act as a catalyst to improve the practice of faculty at LCC, thus improving the education and FTF retention rates of LCC's FTIC degree-seeking student population. The study provided a structure to explain differences in student achievement between or among FTIC degree-seeking students who were in adjunct and full-time faculty FYC course sections. Knowing the differences in student achievement based on instructor employment status should allow for increased ability on the part of LCC to support the success of all FYC faculty who, in turn, influence the success of FTIC degree-seeking students. Ideally, this will lead to enhanced institutional efforts to support and develop all FYC faculty so all FYC faculty may support and empower FTIC students in ways that help them achieve their educational, professional, and civic goals. FTIC students will then be equipped to positively influence future generations through their own positive social change efforts.

Summary

The nation's community colleges have experienced poor student achievement outcomes (Bailey et al., 2015), including dismal retention rates (NCES, 2019). The problem of a trend of decrease in FTIC degree-seeking student cohort FTF retention rates

at a local community college, which may have been influenced by the exclusion of FYC adjunct faculty from departmental collaboration, was addressed in the study. CoP served as the theoretical foundation for the study because CoP is based on the concept of mutually beneficial collaboration (Hoyert & O'Dell, 2019). A quantitative method of inquiry using a casual comparative design was employed to determine if statistically significant differences in FYC semester course grades existed among FTIC degree-seeking students in adjunct and full-time faculty course sections at the study site. The study was limited to a specific group of participants from the study site. The scope of the study was limited to determining differences between or among groups of FTIC degree-seeking students who took FYC at LCC. Ideally, the results of the study will lead to enhanced institutional efforts to support and develop all FYC faculty so they may empower and equip all students to positively influence future generations through their own positive social change efforts.

In Chapter 1, an introduction to the study, its context, problem, purpose, and significance were provided. Other components that are important to the study were also presented. In Chapter 2, a review of the literature in which the literature search strategy, the theoretical foundation, and key concepts and variables of the study are provided. Through the literature review, support and validation of the need to have conducted the study are provided.

Chapter 2: Literature Review

The problem addressed in the quantitative study was the trend of decrease in FTIC degree-seeking student cohort FTF retention rates at LCC, a community college located in a southeastern state. The problem may have been influenced by the exclusion of FYC adjunct faculty from departmental collaboration, a gap in practice. The purpose of the quantitative study was to determine if statistically significant differences in FYC semester course grades existed among FTIC degree-seeking students at LCC who were in adjunct and full-time faculty FYC course sections. Therefore, the literature review was organized to illustrate the connection between FTF retention and FYC semester course grades.

Based on a review of the current literature, researchers have demonstrated that numerous student and institutional variables influence student success. Researchers have demonstrated that student retention is influenced by student success in gateway courses, including FYC (Belfield et al., 2019; CCCSE, 2017; Flanders, 2017; Juszkiewicz, 2017; Nicholes & Reimer, 2020). Researchers have also demonstrated that numerous factors influence student success in gateway courses (Woods et al., 2019), and that instructor employment status influences student success (Ran & Sanders, 2019). However, researchers have not yet demonstrated a connection between student retention and course grades received in the gateway English course FYC when FYC course instructor employment status, student enrollment status, and academic ability are simultaneously applied to semester course grades received in the gateway English course, FYC.

Literature Search Strategy

The literature search was conducted using educational databases that included Educational Resources Information Center (ERIC), SAGE Publications, Education Source, Academic Search Premier, and a World Wide Web search engine (Google Scholar). I also gathered research from government websites and LCC's website. The scope of the literature review related to the key concepts and variables of the study included literature published between 2011 and 2020. I also included literature published in 2011 to provide discipline specific pedagogical context. The scope of the literature review related to the theoretical foundation of the study included literature published between 1991 and 2020 to allow for the inclusion of primary sources. Key search terms included combinations of *student retention*, *adjunct and full-time faculty*, *collaboration*, *instructor employment status*, *first-year-composition*, *student enrollment status*, *best practice*, *first-time-in-college student*, *community college*, *communities of practice*, *gateway course*, *professional development*, *college-level writing*, and *faculty engagement.*

I selected literature from peer-reviewed, and a limited number of nonpeer-reviewed sources to provide a full view of the topic and how the educational and academic community understands the topic. I selected this literature because instructor employment status, student success in gateway courses, and faculty professional development were addressed in the studies. Nonpeer-reviewed sources were limited to those published by Achieving the Dream, and professional organizations specific to the composition discipline. Professional organizations included the National Council of Teachers of English (NCTE), National Writing Project (NWP), and CWPA. To determine if statistically significant differences in FYC semester course grades existed among FTIC

degree-seeking students who were in adjunct and full-time FYC course sections, the variables and influencing factors of the research question were examined.

Theoretical Foundation

The theoretical foundation for the study was Lave and Wenger's CoP. CoP is based on the concept of communities of professionals engaging in collaboration that leads to professional growth in all community members (Hoyert & O'Dell, 2019). Professional growth occurs through regular interactions that lead to mutual learning (Kezar & Gehrke, 2017). CoP was selected as the theoretical foundation because the tenets of CoP often serve as the foundation for what are deemed to be best practices within the field of education.

According to Lave and Wenger (1991), learning is a social practice in which the process of legitimate peripheral participation (LPP) acts as the central defining characteristic. LPP is used to describe how a newcomer becomes part of a CoP. Initially, a newcomer occupies a peripheral space with limited participation in a community of practitioners. The newcomer moves towards full participation in the community's sociocultural practices as mastery of knowledge and skill increases. LPP is an analytical view of learning used to understand learning. According to Lave and Wenger, viewing learning as LPP means that in addition to learning being a condition of membership in a CoP, learning itself is an evolving form of membership in a CoP. In short, learning evolves from CoP membership.

CoPs are three-dimensional communities based on mutual engagement, a joint enterprise, and a shared repertoire (Wenger, 1998). Mutual engagement occurs when community members interact while establishing norms and relationships of mutuality that

reflect their interactions. A joint enterprise is a negotiated entity based on the mutual accountability and interpretations of its constituents. A shared repertoire refers to resources that were created or adopted by the CoP to negotiate meaning within the CoP and have become part of the CoP's practice. Resources may include discourse, artifacts, concepts, and ways of doing things. Through the combination of the three dimensions, CoP members collectively define and gain competence (Wenger, 2000).

CoP has been used extensively as a methodological foundation in educational contexts. Carney et al. (2016) piloted the University of North Georgia's Scholarship of Teaching and Learning Academy to support the scholarly production and pedagogical effectiveness of faculty. The tenets of CoP guided the Academy. The CoP model supported the formulation of effective faculty responses to changing trends in higher education because the CoP model provided opportunities to examine, evaluate, and adapt pedagogical practice to fit current trends in higher education through collaboration.

Kezar and Gehrke (2017) used a mixed-methods approach to study how four CoPs were designed to meet their curriculum reform objectives. Kezar and Gehrke's focus was to determine how the CoPs grew and increased their influence on curriculum reform. Kezar and Gehrke found that the implementation of strategies that connect constituent groups was a key component of growth, as was the employment of strategic growth or focusing on developing strength in specific areas before expanding areas of focus.

Faculty CoPs were created at Indiana State University to facilitate the exploration of pedagogical techniques and increase pedagogical expertise that would lead to improved student learning and student success (Hoyert & O'Dell, 2019). Citing current

researchers who documented that gateway courses often create barriers to student success, Hoyert and O'Dell (2019) focused on creating CoPs for faculty who taught gateway courses. CoP participants explored and implemented various pedagogical techniques and redesigned their courses to include the techniques that improved student success. The students who were in the redesigned course sections experienced significantly higher course grades and one-year retention rates than students who were not in the redesigned course sections. Additionally, the institutional retention rate increased by nearly 2.5%. The increase in student success was attributed largely to the sense of self-governance, ownership, communication, and collaboration that occurred via the CoPs. The CoPs reportedly provided an effective venue for faculty to gain information about institutional values and goals, both of which should guide pedagogical practice. Hoyert and O'Dell demonstrated the positive influence the collaboration among faculty through CoPs had on student success.

As demonstrated by Carney et al. (2016), Kezar and Gehrke (2017), and Hoyert and O'Dell (2019), CoPs were instrumental in improving the practice of faculty by providing opportunities for collaboration, thus improving the success of students. CoP relates to the study in that FYC adjunct faculty at LCC are excluded from collaboration via exclusion from departmental CoPs, while FYC full-time faculty participate in collaboration via inclusion in departmental CoPs. The RQ was designed to determine differences in grades among students who took FYC from adjuncts and fulltime faculty members. In other words, the RQ was designed to determine differences in grades among students who took FYC from instructors excluded from collaboration via exclusion from

departmental CoPs (adjuncts) and instructors who participate in collaboration via inclusion in departmental CoPs (full-time faculty).

Literature Review Related to Key Concepts and Variables

FTIC Students

Community college student populations are largely made up of FTIC students who face various challenges (Bailey et al., 2015). Post-secondary institutions are experiencing increases in the number of freshman degree-seeking underprepared students (Melzer & Grant, 2016). Most community college students begin their academic careers without a solid foundation of academic skills, most notably in math and English (Bailey et al., 2015). On average, 42% of incoming community college freshman test into at least one reading, writing, or math developmental course (Melzer & Grant, 2016). Additionally, most are also without a solid foundation of conceptual learning and metacognitive skills (Bailey et al., 2015). Challenges related to academic shortcomings are often compounded by students' nonacademic lives, including students' professional, personal, civic, social, and domestic lives. FYC is typically taken at or near the beginning of the academic career sometime during the first year of enrollment (Jenkins et al., 2018). Because of the positioning of FYC in the course sequencing of most programs, it is typically in FYC that students' academic and non-academic lives collide for the first time (Herder, 2018). How well students manage that collision in part influences their academic success (Bailey et al., 2015; Herder, 2018).

Researchers have explored the influence student variables may have on FTIC student success and college enrollment decisions. Employing an ex post facto design, Stewart et al. (2015) examined the influence of FTIC student demographics, pre-college

and college academic performance, and family characteristics on FTIC students' decisions to continue their college education. Stewart et al. found that end of first college semester cumulative GPA influenced FTIC students' retention decisions and that FTIC students who received financial aid were more likely to persist to the second semester than students who did not receive financial aid. Researchers have explored the role intrinsic factors, such as motivation and self-efficacy, had in FTIC student success. Honicke and Broadbent (2016) conducted an empirical study and found that as students' academic self-efficacy increased, their academic performance increased. Feldman and Kubota (2015) conducted a systematic review of prior research and found that students who reported moderate to high levels of academic hope reported higher levels of academic self-efficacy than students who reported lower levels of academic hope. Higher levels of academic self-efficacy were associated with increased academic performance. Walsh and Robinson Kurpius (2016), using hierarchical regression analyses, found that parental and student valuing of education, residential status, high school GPA, and self-perceptions related to academics influenced FTIC students' decisions to remain in college. Using a correlation analysis, Margarit and Kennedy (2019) found that academic integration factors had greater influence in timely graduation than FTIC students' background factors. While explorations that include the influence of student demographics, intrinsic factors, and precollege experience are valuable, they are areas outside institutional influence. Therefore, their influence was not explored in the study.

To increase FTIC student success, many community colleges have adopted the guided pathways model. Wide adoption of the model is partially due to national initiatives, including the American Association of Community Colleges Pathway Project

(Jenkins et al., 2018). The guided pathways model was designed to provide students with clear course sequencing within a program of study, progress milestones, and program learning outcomes. Although guided pathway institutions emphasize advising and other supports, it remains the student's responsibility to seek support. The students who need the support the most are typically the least likely to use them. During the first semester at a community college, most FTIC students are unaware of academic and nonacademic supports available to them (Bailey et al., 2015).

Researchers have documented the challenges FTIC students encounter, including being underprepared (Melzer & Grant, 2016) and lacking academic, metacognitive, and conceptual learning skills (Bailey et al., 2015). Researchers have also found that although many FTIC students would benefit from academic and nonacademic supports, most FTIC students are not aware of the supports (Bailey et al., 2015). Through the guided pathways model, many institutions have emphasized advising and other FTIC student supports to increase FTIC student success (Jenkins et al., 2018). Improving FTIC student success requires that institutions fully view the student experience, including the gateway course experience (Belfield et al., 2019; Matthews & Newman, 2017). The focus of the study was FTIC students' success in the gateway English course, FYC.

Retention

Retention is a key component of student success, hence institutional success (Burke, 2019). Burke (2019) conducted a literature review of three seminal works on student retention theory which included Spady, Tinto, and Bean. The application of the works to current higher education research was also described. Although variances existed among the retention theories, all three theorists acknowledged that academic and

social systems influence retention. Burke concluded that retention is a complicated, multifaceted issue that requires addressing both academic and social systems. Therefore, retention strategies should include institutional investments in professional development and programming.

Retention rates are influenced by student enrollment status (CCCSE, 2017; Juszkiewicz, 2017). According to CCCSE (2017), students who attended college full-time were more engaged in the college environment than their part-time counterparts. Therefore, full-time college students experienced greater success than part-time college students. Data for the CCCSE report were drawn from 60,730 respondents to CCCSE's 2016 Community College Survey of Student Engagement and 17,085 transcripts of students who completed the survey between 2005 and 2013. Juszkiewicz (2017), who is also the Director of Policy Analysis for the American Association of Community Colleges, completed a comparative analysis of community college enrollment and completion trends reported by the U.S. Department of Education and the National Student Clearinghouse. Although both entities used different measures, both reported that full-time FTIC students enrolled at higher rates and experienced higher completion rates than their part-time counterparts.

Retention rates are influenced by students' success is gateway courses such as FYC. Using linear regression analysis, Flanders (2017) found students' successful completion of a gateway course within a declared major during the first semester of enrollment influenced second-semester enrollment decisions. First to second semester retention rates for students who successfully completed a gateway course within their major were higher than those who did not successfully complete a gateway course.

Additionally, students who earned a 3.0 or higher GPA during their first semester of enrollment were 127 times more likely to enroll for a second semester than students who earned a 2.0 or lower GPA during their first semester of enrollment.

Analyzing data drawn from more than 75 institutions from three state college systems with a sample size over of 500,00 Belfield et al. (2019) found that student momentum during the first year of college is crucial to student success. Measurements of momentum were based on an early momentum metrics that included credit momentum, persistence momentum, and gateway course momentum. Additionally, predictions were made about the influence of improved first-year momentum on the future success of FTIC students. Simulated outcomes indicated that a 50% increase in the number of FTIC students meeting early momentum metrics benchmarks could yield a 3% increase in completion rates.

Ran and Sanders (2019) partnered with researchers at Columbia University's Community College Research Center to complete a quantitative analysis in which they explored the influence an instructor's employment status may have on the success of students enrolled in developmental and gateway courses. The researchers analyzed administrative datasets from six ATD Leader Colleges and focused on examining the effects of part-time faculty on two sets of outcomes: (a) current course outcomes and (b) subsequent sequential outcomes. The researchers found that students who took developmental and gateway English and math courses with adjunct faculty experienced better outcomes in those courses than their counterparts who took the same courses with full-time faculty. However, students who were in adjunct faculty sections were 3% to 5%

less likely to enroll in and pass the next course in the sequence than students who were in full-time faculty sections.

Researchers have documented the influence instructor employment status (Ran & Sanders, 2019), student enrollment status (CCCSE, 2017; Juszkiewicz, 2017), and gateway course success (Belfield et al., 2019; Flanders, 2017) may have on students. However, the variables were studied in isolation. In the study, instructor employment status (adjunct or full-time) and student enrollment status (part-time or full-time) will serve as IVs applied to FYC semester course grades as an indicator of success in the gateway English course FYC.

FYC

Retention rates are influenced by FYC course success as FYC is the designated gateway English course in most states (Combs, 2016; Flanders, 2017; Nicholes & Reimer, 2020). In FYC students are expected to learn the skills necessary to write at the college level. According to Combs (2016) and Getchell and Lentz (2020), the role of FYC is to prepare students to write in all educational disciplines because writing is based on a system of inquiry common to all educational disciplines.

Research done by Simons (2017) underscored the role of FYC in postsecondary education. Via a case study, Simons explored how an interdisciplinary course was developed at the University of Houston as part of the university's Quality Enhancement Plan. The development of an interdisciplinary course was guided by the premise that writing is foundational to learning across disciplines. Objectives of the Quality Enhancement Plan included improving students' research and critical thinking skills, increased interdepartmental collaboration, and increased student retention. One theme

that emerged from the study was a heightened awareness of challenges students faced regarding research and writing. The introduction to and development of research and writing skills are typically major components of the FYC curriculum.

In 2011, the *Framework for Success in Postsecondary Writing* was developed and endorsed by the CWPA, the NCTE, and the NWP (NCTE & NWP, 2011). The rhetorical, 21st century skills, experiences, and habits of mind crucial to college success were described in the *Framework*. Habits of mind refers to an approach to learning that is practical and intellectual and supports learning across academic disciplines. Ways in which instructors can support students' development of the habits through writing, reading, and critical thinking were explained. The *Framework* was based on the premise that writing well is crucial to success in college and beyond. *The Framework for Success in Postsecondary Writing: Scholarship and Applications* (Behm et al., 2017) is a compilation of essays in which broad applications of the *Framework* were explored. The explorations included scholarly, theoretical, and practical applications of the *Framework*. A common theme was that the *Framework* supported communication, collaboration, advocacy, and research in both academic and nonacademic environments.

FYC semester course grades influence student success (Nicholes & Reimer, 2020). Using linear regression, Nicholes and Reimer analyzed student records from a career-focused polytechnic university to evaluate the influence of FYC semester course grades on persistence from FYC to Composition 2. Nicholes and Reimer found that students in the sample who received an A or B in FYC in contrast to students who received a C or below were (a) 5.3 times more likely to enroll in Composition 2; (b) 4.1 times more likely to earn an A or B in Composition 2; and (c) 3.3 times more likely to

graduate within four to six years. Additionally, 95% of the students in the sample who received a D, F, or W upon their initial attempt at FYC did not graduate within four to six years. The differences between students who received an A or B and students who received a C or below in FYC were related to how students used grades to confirm or deny a sense of academic identity and belonging.

With developmental courses now optional in many states, academically underprepared students who opt out of recommended developmental English courses are at greater risk of failing FYC than underprepared students who completed recommended development English courses (Woods et al., 2019). Woods et al. (2019) identified underprepared students as students who would have been required to complete developmental coursework prior to the passage of legislation that made development coursework optional in a southeastern state. Approximately one-half of underprepared students opted out of developmental English courses and enrolled in gateway English courses like FYC. Around 30% of underprepared students who enrolled in gateway English courses without completing the recommended developmental course work are unsuccessful in gateway English courses.

Researchers and professional organizations in the field of composition have described the central role writing occupies in education (Behm et al., 2017; Combs, 2016; Getchell & Lentz, 2020; NCTE & NWP, 2011; Simons, 2017; Woods et al., 2019). Researchers have documented the influence FYC semester course grades may have on student success (Nicholes, & Reimer, 2020). Researchers have not explored in tandem the influence instructor employment status and student enrollment status may have on FYC semester course grades.

Adjuncts

Adjuncts are part-time, nontenure track faculty employed on a semester-to-semester basis (Bickerstaff & Chavarín, 2018; Ott & Dippold, 2018). Adjunct faculty is the fastest-growing segment of the professorate in higher education, making up nearly 52% of the national professorate (Buch et al., 2017) and approximately 70% of the community college professorate (Ott & Dippold, 2018; Ran & Sanders, 2019). Adjunct faculty teach the majority of course sections across disciplines, with most teaching introductory level and gateway courses (Ott & Dippold, 2018; Ran & Sanders, 2019).

Researchers have explored intrinsic and background variables related to adjunct faculty. Eagan et al. (2015) found that individual behaviors, institutional support services, and institutional cultural climate influenced adjunct faculty job satisfaction via multivariate analysis of over 4,000 survey responses from adjunct faculty across nearly 300 postsecondary institutions. Starcher and Mandernach (2016) examined the characteristics, motivations, and interests of online adjunct faculty in relation to institutional type (profit or not for profit) and found insignificant differences in relation to institution type. Pons et al. (2017) employed a priori approach to determine the influence age, gender, years of teaching experience, reason for employment, and outside part-time or full-time employment of 103 adjunct faculty members had on their motivation to work as adjuncts. Pons et al. found that most adjuncts were motivated by the opportunity to work with students, personal satisfaction, and chance to work within their field of expertise. While explorations of the influence intrinsic and background variables have on adjunct faculty expand knowledge in the field, because they are outside of institutional influence, they will not be considered in the study.

Adjunct faculty face numerous challenges. Most adjunct faculty operate with minimal knowledge and access to institutional and instructional resources (Bakley & Brodersen, 2018; Bickerstaff & Chavarín, 2018). The lack of resources most adjuncts operate with has created obstacles to teacher effectiveness and student learning (Goldstene, 2015; Witt & Gearin, 2020). The lack of institutional and instructional resources contributes to the negative impact adjunct faculty have on undergraduate education. Students have limited access to adjunct faculty outside of the classroom, and adjunct faculty have limited knowledge of academic and nonacademic student support services, are less likely to employ learning-centered strategies and technology, and more likely to unknowingly inflate grades than full-time faculty (Kimmel & Fairchild, 2017).

Rhoades (2020), via a mixed-methods critical discourse analysis, explored the ways contractional provisions attained through collective bargaining agreements determine the access adjunct faculty have to instructional resources and professional development. Critical discourse analysis was used to break down links between discourse and the replication or minimalization of power dynamics to discover how specific meanings create or challenge power dynamics. Of the 254 adjunct faculty contracts reviewed, over half provided managerial discretion related to proving instructional resources, and one-quarter provided managerial discretion pertaining to professional development. Of the contracts that included provisions for resources, only 25% of them directly addressed materials. In comparison, the verbiage in 75% of the contracts was limited to physical space, access to computers and email, and required course texts. Although three-quarters of the contracts included provisions for adjunct professional development, the provisions were limited mainly to allowing access without

compensation. Absent in nearly all the contracts, yet instrumental in providing quality education, were provisions to include adjunct faculty in departmental curricular conversations.

Most adjunct faculty are excluded from curricular conversations (Goldstene, 2015; Witt & Gearin, 2020). Although course textbooks and digital components such as learning platforms are provided to adjunct faculty, suggested syllabi or lesson plans to address essential curricular elements are not typically provided. It is not uncommon for the information provided to adjunct faculty to be limited to course assignments and required texts for those assignments. However, adjunct faculty members, because they are excluded from curricular conversations, may not be familiar with program learning outcomes or the role their courses have in programmatic goals (Callier et al., 2015). Learning outcomes and programmatic goals should influence curricular components (Cydis et al., 2017).

Best Practices in Faculty Development

A consensus exists among researchers that best practices related to faculty development include collaboration. Best practices in education are strategies supported by research (Carless & Boud, 2018). For example, on behalf of the Kellogg Institute, Severs (2017) created a professional development program at Mohawk Valley Community College. One idea that was central to Severs' mission was to address what she referred to as *the knowledge gap*, the gap between content knowledge and teaching knowledge about content. The target audience for the professional development program was English adjunct faculty. English adjunct faculty at Mohawk Valley Community College taught more course sections than full-time faculty and, due to the lack of

integration into the department and resources, seemed to have the greater knowledge gap. According to Severs, professional development is the most effective way to address knowledge gaps and improve student success. Severs' two primary objectives of the professional development program were increasing communication and collaboration among faculty and focusing on discipline-specific practices. Feedback from program participants indicated that there had been increases in teacher effectiveness and student success.

Graziano et al. (2016) produced a guidebook that is used to support the development of learning communities for City University of New York colleges. The guidebook's production was based on the premise that collaborative processes that make learning communities successful include transparency, relationship building, integration, assessment, and reflection. The guidebook has served as a key component within the City University of New York system as part of its efforts to maintain philosophical and pedagogical integrity.

As part of its Engaging Adjunct Faculty in the Student Success Movement initiative, ATD staff in collaboration with colleagues at colleges within the ATD network created a practitioners' guide (ATD, n.d.). The purpose of the guide is to support the development of practices and policies to improve instruction provided by adjunct faculty and increase the engagement of adjunct faculty in student success initiatives (ATD, n.d.). ATD is a network of over 300 colleges committed to improving the success of all students. The design principles described in the guide included the sustained engagement of adjunct faculty in improvement activities and grounding the professional learning

opportunities for adjunct faculty in issues of classroom practice that are examined through collaboration. LCC, the research site, in an ATD Leader College.

Bickerstaff and Chavarín (2018) served as external research partners for ATD's Engaging Adjunct Faculty in the Student Success Movement and presented the findings of their qualitative study in a research brief. There were several common themes expressed among adjuncts that included a lack of direction and information required to be successful in their job, feelings of institutional disconnection, and professional isolation and departmental exclusion. According to Bickerstaff and Chavarín, to effectively address adjunct faculty needs that pertain to instruction, institutions should provide clear and readily accessible information to adjuncts via online resources and create opportunities for collaboration and connection through communities of practice and other means. Institutions should also solicit adjunct faculty perspectives and feedback through participation in departmental and institutional initiatives.

Summary and Conclusions

Student success and institutional success are contingent upon student retention (Burke, 2019; CCCSE, 2017; Juszkiewicz, 2017). Efforts to improve retention must include strategies to improve student success in gateway courses (Matthews & Newman, 2017) because gateway course success influences student retention (Belfield et al., 2019; Flanders, 2017). FYC is a gateway course that influences student success (Combs, 2016; Flanders, 2017; Nicholes & Reimer, 2020). While in FYC, students are expected to learn the skills necessary to write well in college (Behm et al., 2017; Combs, 2016; Getchell & Lentz, 2020; NCTE & NWP, 2011; Simons, 2017). Although adjunct faculty teach the majority of FYC course sections (Buch et al., 2017; Ott & Dippold, 2018; Ran &

Sanders, 2019), most do so without institutional support or inclusion in departmental collaboration (Bakley & Brodersen, 2018; Bickerstaff & Chavarín, 2018). The exclusion of adjunct faculty from collaboration has a negative influence on student success (Callier et al., 2015; Cydis et al., 2017; Goldstene, 2015; Kimmel & Fairchild, 2017). Best practices related to the professional development of faculty are based on collaboration (ATD, n.d.; Bickerstaff & Chavarín, 2018; Graziano et al., 2016; Severs, 2017).

Through the study, the problem of the trend of decrease in FTIC degree-seeking student cohort FTF retention rates at a local community college was addressed. The purpose of the study was to determine if statistically significant differences in FYC semester course grades exist among FTIC degree-seeking students who were in adjunct and full-time faculty course sections. Although researchers have documented the influence collaboration has on the professional development of faculty, FYC adjunct faculty are excluded from collaboration at the research site. By viewing the problem through the lens of CoP, as it is based on collaboration, research might offer additional insight into student retention.

The design and elements of the study will be addressed in Chapter 3. I will discuss the setting, research design and rationale, methodology, issues of validity, and ethical procedures that pertain to the study. The chapter concludes with a summary.

Chapter 3: Research Method

Retention is a key component of student and institutional success (Burke, 2019) and is influenced by students' success in gateway courses, like FYC (Belfield et al., 2019; Flanders., 2017; Nicholes & Reimer, 2020). Adjunct faculty typically teach most gateway course sections (Ott & Dippold, 2018; Ran & Sanders, 2019), consequently influencing student and institutional success. Thus, the purpose of the study was to determine if statistically significant differences in FYC semester course grades existed among FTIC degree-seeking students at LCC who were in adjunct and full-time faculty course sections. A quantitative analysis of data pertaining to FYC semester course grades for the population under study was conducted using CoP as the study's theoretical foundation. An ANCOVA was conducted using archival FYC semester course grades for the population under study. The research setting, design, methodology, and threats to validity that pertain to the study are described.

Research Design and Rationale

FYC is the designated English gateway course in most states (Combs, 2016; Flanders, 2017; Nicholes & Reimer, 2020), including the state where LCC is located per the state's department of education website in 2020. Researchers have explored in isolation the influence instructor employment status (Ran & Sanders, 2019), student enrollment status (CCCSE, 2017; Juszkiewicz, 2017), and academic ability (Melzer & Grant, 2016; Walsh & Robinson Kurpius, 2016) may have on student success, including gateway course success and retention. As such, I conducted an exploration of instructor employment status (adjunct or full-time), while controlling for student enrollment status (part-time or full-time) and academic ability provided insight whether FYC instructor

employment status may be a variable that influences student success in the gateway English course FYC, thus student retention.

A quantitative method with a casual comparison design was used in the study. The method and design were appropriate for the study because the intent of the study was to investigate whether FYC semester course grades (DV) differed according to FYC instructor employment status (IV_1). To answer the RQ, FYC semester course grades of students who took FYC from an adjunct or full-time faculty member were compared while controlling for student enrollment status (IV_2; part-time and full-time) and academic ability (CV). A qualitative method of inquiry was not selected for the study because an investigation of perceptions related to the variables was not intended, but rather the determination of a statistically significant relationship among variables. There were no time or resource constraints related to the study and no interventions were applied as part of the study.

Methodology

The population selection, use of archival data, variables, and data analysis plan are described in the following section.

Setting

LCC is a large, open enrollment, public community college with an annual enrollment of approximately 18,000 undergraduate students that serves five counties in a southeastern state. LCC was established as a junior college in 1959 and is now a 4-year institution of higher learning. LCC is accredited by the Southern Association of Colleges and Schools to award associate and bachelor's degrees. During a March 8, 2018 conversation, a former LCC English department chair stated that during the 2016 through

2018 academic years, most FYC course sections at LCC were taught by adjuncts. Furthermore, the current LCC English department chair and academic dean explained during the December 17, 2019 department meeting that reliance on FYC adjuncts at LCC is expected to continue.

Population Selection

The sample for the study was 200 randomly selected LCC FTIC degree-seeking students from each of the 2016, 2017, and 2018 cohorts who enrolled in FYC during the first year of their academic career. As documented in student achievement reports posted on LCC's website, each cohort is made up of approximately 4,000 part-time and full-time students, with roughly 2,000 students from each cohort enrolled in FYC during the first year of their academic career. To improve statistical power and minimize the need for large samples, equal sample sizes of 200 were drawn from each cohort approximately equally distributed among (a) adjunct and full-time faculty, (b) part-time and full-time FTIC degree-seeking students, (c) FYC course sections taught during the same semesters and course formats. A priori power analysis performed using G Power 3.1 indicated a minimum sample size of 180 participants from each cohort was required to achieve a .05 level of significance (see Li-Ting & Leping, 2019).

Archival Data

Archival data were used for the study with no researcher-participant interaction. Upon approval from Walden University's Institutional Review Board (IRB; Approval No. 11-09-20-0479353) and LCC's IRB (as the study site), data required to complete the study were obtained from the study site. Students and instructors were deidentified by the study site prior to my receipt of the data. Data obtained for the study consisted of FYC

semester course grades for the student population under study with only the employment status of the FYC instructor, student enrollment status, and student academic ability identified. Students' composite reading and writing scores from the PERT were used as the indicator of academic ability. Data were limited to FTIC degree-seeking in the 2016 through 2018 cohorts.

Variables

FYC Instructor Employment Status: IV_1

FYC instructor employment status was broken down into adjunct faculty and full-time faculty. Adjunct faculty are part-time, nontenure track faculty who are employed on a semester-to-semester basis (Bickerstaff & Chavarín, 2018; Ott & Dippold, 2018). Full-time faculty are faculty who teach a full credit load per semester and are employed on an annual contractual basis (Bickerstaff & Chavarín, 2018; Ott & Dippold, 2018). Adjunct faculty were coded as 1, and fulltime faculty were coded as 2 for data entry purposes.

Student Enrollment Status: IV_2

Student enrollment status was broken down into part-time and full-time enrollment status. A part-time student is a student who enrolls in less than 12 credit hours during a semester (NCES, 2020). A full-time student is a student who enrolls in 12 or more credit hours during a semester (NCES, 2020). Students enrolled part-time were coded as 1 and students enrolled full-time were coded as 2 for data entry purposes.

FYC Semester Course Grades: DV

FYC semester course grades were entered using a scale of 1 to 5 as follows:

A=5 *B*=4 *C*=3 *D*=2 *F*=1

Academic Ability: CV

Academic ability was described using composite test scores from the PERT. Per the state's department of education website in 2020, the PERT is a standardized placement test used in the southern state where LCC is located. The PERT is a computer adaptive multiple-choice test with a reading and writing composite scale score range of 50 to 150 for each test. Pursuant to Section 1008.30 of the state department of education's statues, a minimum aggregate score of 209 is required to enroll in FYC, and the PERT scores must not be more than 2 years old at the time of enrollment into FYC. The variable for academic ability was coded as students' actual composite PERT score as reported by LCC.

Data Analysis Plan

The Statistical Package for the Social Sciences (SPSS) version 27 was used for data analysis in the study. The following RQ guided the study:

RQ: What is the difference in FYC semester course grades among FTIC degree-seeking students who took FYC from adjuncts and full-time faculty members?

H_0: There is no statistically significant difference in FYC semester course grades among FTIC degree-seeking students who took FYC from adjuncts and fulltime faculty members.

H_a: There is a statistically significant difference in FYC semester course grades among FTIC degree-seeking students who took FYC from adjuncts and fulltime faculty members.

A two-way ANCOVA was conducted using archival FYC course semester course grades for the population under study. The two-way ANCOVA is a form of inferential

statistics used to compare the groups of an IV while adjusting the DV based on additional variables, or covariates, known to be associated with the DV (Anderson, 2018). A two-way ANCOVA was used to determine whether a statistically significant difference existed among the two groups of the IV of FYC instructor employment status (adjunct and full-time) in terms of the DV of FYC semester course grades after controlling for students' enrollment status and academic ability. Student enrollment status (CCCSE, 2017; Juszkiewicz, 2017) and academic ability (Stewart et al., 2015; Walsh & Robinson Kurpius, 2016) have been associated with gateway course success.

Data were screened for errors and the errors addressed prior to data analysis. Screening included checking raw data, identifying outliers using SPSS, and managing missing data (Willes, 2017). Upon completion of descriptive statistics and assumptions testing, I conducted ANCOVA to determine statistical significance of the difference in mean using a criterion alpha of .05. Ten assumptions are required for the results of a two-way ANCOVA to be valid, four of which relate to the measurement of variables and can be tested prior to data collection (Anderson, 2018). The first four assumptions are, (a) the DV must be measured at the continuous level, (b) the two IVs must be comprised of two or more independent, categorical groups, (c) the CVs must be continuous, and (d) there must be independence of observations (Anderson, 2018). For the study, (a) the DV (grades) was measured from *1* to *5* (b) IV_1 (instructor employment status) and IV_2 (student enrollment status) each include two groups, (c) the CV was measured from 50 to 150, and (d) each instructor and student was a member of one group. After data collection the other six assumptions were tested: (a) linearity of the CV to the DV, (b) homogeneity of regression slopes, (c) homoscedasticity, (d) homogeneity of variances, (e) significance

of unusual points in IV groups, and (f) normal distribution of residuals for each IV group (Leppink, 2018). I discuss the assumptions further in Chapter 4.

Threats to Validity

The failure to meet quality standards may result in research findings that are misleading or inaccurate (Fendler, 2016). Therefore, it is important to develop valid studies to guide decision making (Burkholder et al., 2016; Thomas, 2017). In research, a study is deemed valid when the research design and methods are reliable and the findings accurately describe or reflect the trend or event under study (Burkholder et al., 2016; Thomas, 2017).

There are two types of validity, internal and external. Internal validity refers to the degree of soundness of the study, including the described effect of the IVs on the DVs (Thomas, 2017). Because the study was casual comparative in design, a link between the IVs and DV cannot be guaranteed (Fulmer, 2018). Therefore, data analysis and conclusions were limited to descriptions of differences between and among IV groups. Internal validity is improved when extraneous variables are controlled for (Burkholder et al., 2016; Fendler, 2016). To mitigate threats to internal validity, student enrollment status (part-time or full-time) and academic ability were controlled for. Because neither the manipulation of variables or a pretest – posttest design was used in the study, internal threats including, but not limited to, history, maturation, and testing, did not apply to the study.

External validity refers to the extent research findings are generalizable, or the degree to which findings apply in other contexts (Burkholder et al., 2016; Fendler, 2016). To mitigate threats to external validity, a thorough review of current literature was done

so the study builds on related studies, and the context of the study was described (see Burkholder et al., 2016). The description of context provided included the setting, population, years data were collected for, and measurements that were used in the study. To increase representativeness, a proportional stratified random sampling strategy was employed so participants shared similar characteristics of interest (see Hanasono, 2017; Mitchell, 2018). To increase the ability of the study to be replicated across contexts, the study has been reported in a transparent, comprehensive, and clear manner (see Hanasono, 2017).

Conflict of interest on the part of the researcher has the potential to pose threats to validity (May, 2017). Conflict of interest occurs when personal bias influences or appears to influence the researcher's objectivity as it pertains to research design and study findings (May, 2017). To mitigate threats related to conflict of interest, a statement of disclosure is provided in the following section. Additionally, the development of a conflict-of-interest management plan was not deemed necessary during the IRB process.

Ethical Procedures

Formal application and approval from the Walden University and LCC's IRBs was required because IRBs govern ethical considerations for data collection. Because faculty and students were deidentified by the research site prior to my receipt of data, no issues of inclusion of protected classes of individuals or confidentiality occurred. Participants were not recruited, and no treatments or interventions were applied as part of the study. I have been an FYC adjunct instructor at the research site since the Fall 2016 semester. I did not interact with participants nor was I involved with the gathering or provision of the data for the study.

The data collected for the study will be stored in a secure location in my home for 5 years. Data for the study do not have any identifying student or faculty information because names were replaced with numbers by the study site prior to my receipt of data. I will maintain and honor the study site's anonymity by not publicly revealing the name of the study site or state where it is located.

Summary

Through the study, the problem of the trend of decrease in FTIC degree-seeking student cohort FTF retention rates at a local community college was addressed. The purpose of the study was to determine if statistically significant differences in FYC semester course grades existed among FTIC degree-seeking students who were in adjunct and full-time faculty course sections. Therefore, quantitative analysis of data pertaining to FYC semester course grades for the population under study was conducted using a two-way ANCOVA. A two-way ANCOVA determined whether a statistically significant difference exists in FTIC degree-seeking students' FYC semester course grades who were in adjunct and full-time faculty FYC sections after controlling for student enrollment status (part-time or full-time) and academic ability.

Data screening and the data analysis plan were described. Threats to internal and external validity, and ethical concerns have been addressed. In Chapter 4, descriptions of the data collection process, data analyses, and results of the data analyses will be provided. A summary in which the RQ will be answered based on data analyses results will also be provided in Chapter 4.

Chapter 4: Results

In this study, I compared the FYC semester course grades of FTIC degree-seeking students who were in adjunct and full-time faculty FYC course sections. I used the following RQ and hypotheses to guide the study:

RQ: What is the difference in FYC semester course grades among FTIC degree-seeking students who took FYC from adjuncts and full-time faculty members?

H_0: There is no statistically significant difference in FYC semester course grades among FTIC degree-seeking students who took FYC from adjuncts and full-time faculty members.

*H*a: There is a statistically significant difference in FYC semester course grades among FTIC degree-seeking students who took FYC from adjuncts and full-time faculty members.

In this chapter, a presentation of the data collection, assumptions testing, data analysis, and results are provided.

Data Collection

IRB approval was obtained from Walden University as the IRB of Record (11-09-20-0479353). The LCC IRB granted an exemption from further IRB review because the LCC IRB deemed that the research for this study entailed no more than minimal risk as it would not likely adversely affect students' opportunity to learn required content or the assessment of educators who provide instruction. Data were provided by LCC for the 2016, 2017, and 2018 FTIC degree-seeking student cohorts. The data consisted of 3,410 sets of deidentified student records which included each students' enrollment status (part-

time or full-time), cohort year, FYC semester course grade, FYC instructors' employment status (adjunct or full-time), and composite reading and writing PERT score. Course modality and semester length were also included to ensure the sample was representative of the larger population regarding modality and semester length. During the data screening process, 1,982 entries were discarded because either the student's PERT score was not included in the student's record or the student's record included the FYC course semester grade of W which indicated the student had withdrawn or I which indicated the student had not completed the course work.

From the remaining 1,428 entries, 200 FTIC degree-seeking student records from each of the 2016, 2017, and 2018 cohorts was drawn using proportional stratified random sampling to achieve a sample size of 600. The sample consisted of 150 part-time FTIC degree-seeking students who were in FYC sections taught by adjuncts, 150 full-time FTIC degree-seeking students who were in FYC sections taught by adjuncts, 150 part-time FTIC degree-seeking students who were in FYC sections taught by full-time faculty, and 150 full-time FTIC degree-seeking students who were in FYC sections taught by full-time faculty.

Although course modality and semester length were not variables of interest in the study, these characteristics were present in the broader population from which the sample was drawn. Course modality and semester length were found in the sample in approximately the same proportion as the broader population from which the sample was taken, as shown in Table 1. Approximately 80% of students took FYC in person while approximately 20% did not take FYC in person and approximately 80% of the students

took FYC during a full-length semester (16 weeks) while approximately 20% did not take FYC during a full-length semester.

Table 1

Modality and Semester Length

	Frequency in Population	Percent of Population	Frequency in Sample	Percent of Sample
Modality				
In Person	2743	80.4	480	80
Not In Person	667	19.6	120	20
Total	3410	100	600	100
Semester Length				
Full Length	2734	80.2	480	80
Not Full Length	676	19.8	120	20
Total	3410	100	600	100

The distribution of FYC semester course grades is presented in Table 2. The characteristics considered to achieve a sample representative of the broader population using stratified random sampling included instructor employment status, student enrollment status, course modality, and semester length. Although students' FYC semester grade was not a characteristic considered to construct the sample, the FYC semester grade distribution for the broader population and sample were similar as shown in Table 2.

Table 2

Comparison of FYC Semester Grade Distribution

Grade	Frequency in Population	Percent of Population	Frequency in Sample	Percent of Sample
A	753	22.1	168	28.0
B	1163	34.1	231	38.5
C	676	19.8	107	17.8
D	118	3.5	26	4.3
F	438	12.8	68	11.3
W and I	262	7.7	0	0
Total	3410	100	600	100

The distribution of PERT scores and means are presented in Table 3. Although students' PERT scores were not a characteristic considered to construct the sample, the PERT score distribution for the broader population that scores were provided for and the sample were similar as shown in Table 3. Additionally, there was less than a 2-point difference in the mean PERT score between the broader population and the sample.

Table 3

Comparison of Distribution of PERT Scores

Score	Frequency in Population	Percent of Population	Frequency in Sample	Percent of Sample
69.5 or below	3	0.2	0	0
70-79.5	28	1.8	6	1
80-89.5	97	6.4	39	6.5
90-99.5	332	21.6	152	25.3
100-109.5	569	37	218	26.3
110-119.5	418	27.2	153	25.6
120-129.5	75	4.9	30	5
130-139.5	12	0.8	2	.3
140-149.5	2	0.1	0	0
Total	1536	100	600	100

Note. Pert scores for 1,874 of the 3,410 students were not included in the records provided by LCC. The population mean was 104.68; the sample mean was 106.86.

Data Analysis

Descriptive Data

To justify the inclusion of academic ability as the CV, a simple linear regression with academic ability as the CV and FYC semester course grades as the DV was conducted as shown in Table 4. As shown in Table 5, academic ability influenced FYC semester course grades, $F(1.598) = 208.87$, $p < .001$. Therefore, the inclusion of the covariate was justified.

Table 4

Regression Model for Academic Ability and FYC Semester Course Grades

Model		Sum of Squares	Df	Mean Square	*F*	Sig.
1	Regression	240.13	1	240.13	208.87	.000[b]
	Residual	687.49	598	1.150		
	Total	927.62	599			

Note. Dependent Variable: FYC Semester Grade. Predictors (Constant): PERT Score

Table 5

Means and Standard Deviations for Students' PERT Scores According to Instructor Employment Status (IV_1) and Student Enrollment Status (IV_2)

Instructor Employment Status	Student Enrollment Status	Mean	Std. Deviation	*N*
Adjunct	Part-time Student	105.04	10.15	150
	Full-time Student	104.85	9.64	150
	Total	104.95	9.88	300
Full-time Faculty	Part-time Student	103.50	9.80	150
	Full-time Student	103.39	10.61	150
	Total	103.44	10.20	300
Total	Part-time Student	104.27	9.99	300
	Full-time Student	104.12	10.15	300
	Total	104.19	10.06	600

To establish academic equivalence of the IV groups prior to students' enrollment in FYC, a linear regression was performed using instructor employment status and student enrollment status as the IVs and PERT scores as

the DV as shown in Table 5. The two-way ANCOVA was performed using the general linear model (GLM) in SPSS. The data showed similar academic ability as measured by PERT test scores for part-time and full-time students who were in adjunct and full-time faculty FYC course sections. As shown in Table 6, there were no statistically significant differences at ($\alpha = 0.05$) between students' scores on the PERT test that may be ascribed to instructor employment status, student enrollment status, or interaction between instructor employment status and student enrollment status which meant that the groups were academically equal before enrollment in FYC.

Table 6

Two-way ANCOVA Test Results for Students' PERT Scores According to Instructor Employment Status (IV_1) and Student Enrollment Status (IV_2)

Source	Type III Sum of Squares	Df	Mean Square	*F*	Sig.
Instructor Employment Status	339.75	1	339.75	3.35	.068
Student Enrollment Status	3.30	1	3.30	.03	.857
Instructor * Student	.260	1	.26	.003	.960
Error	60355.63	596	101.26		
Total	6575178.75	600			

Assumptions Testing

For this study, I used a two-way ANCOVA to determine if the mean FYC semester course grades were significantly different between FTIC degree-seeking

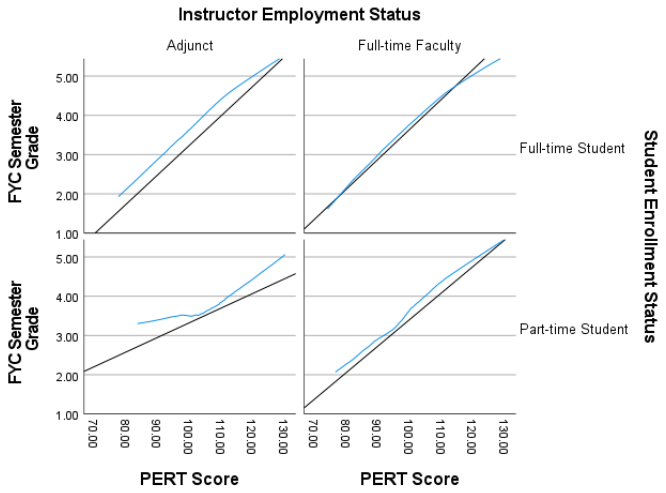
students who took FYC from and adjunct faculty and full-time faculty instructor. Ten assumptions are required for the results of a two-way ANCOVA to be valid, four of which relate to the variables (Anderson, 2018). The first four assumptions were tested prior to data collection as described in Chapter 3. After data collection I tested the other six assumptions: (a) linearity of the CV to the DV, (b) homogeneity of regression slopes, (c) homoscedasticity, (d) homogeneity of variances, (e) significance of unusual points in IV groups, and (f) normal distribution of residuals for each IV group (see Leppink, 2018).

Linearity

The CV should be linearly related to the DV for each combination of groups of the cell design to maintain the power of the two-way ANCOVA (Leppink, 2018). There was a linear relationship between the covariate academic ability, as measured by students' PERT scores, and the dependent variable FYC semester course grades for each group. The linear relationship was assessed by visual inspection of a scatter plot as shown in Figure 1.

Figure 1

Scatter Plot of FYC Semester Grades by PERT Scores



Homogeneity of Regression Slopes

The relationship between the CV and the DV should be the same for each combination of groups of the two IVs, otherwise the null hypothesis may be falsely retained (Leppink, 2018). As shown in Table 7, there was not homogeneity of regression slopes, $F(3,592) = 4.685$, $p = .003$. This p value indicated that the interaction of the CV on the IV groups varied among the groups. The two-way ANCOVA is robust enough to withstand risk associated with violating the assumption of homogeneity of regression slopes (Laraway et al., 2019). Therefore, I elected to continue with the two-way ANCOVA.

Table 7

Tests of Between-Subjects Effects (IV Groups and PERT) With Dependent Variable as FYC Semester Grade

Source	Type III Sum of Squares	Df	Mean Square	*F*	Sig.
Corrected Model	276.39	7	39.48	35.89	.000
Intercept	49.45	1	49.45	44.95	.000

Groups	13.03	3	4.34	3.94	.008
Pert	247.25	1	247.25	224.76	.000
Groups * Pert	15.46	3	5.15	4.68	.003
Error	651.23	592	1.10		
Total	9031.00	600			
Corrected Total	927.62	599			

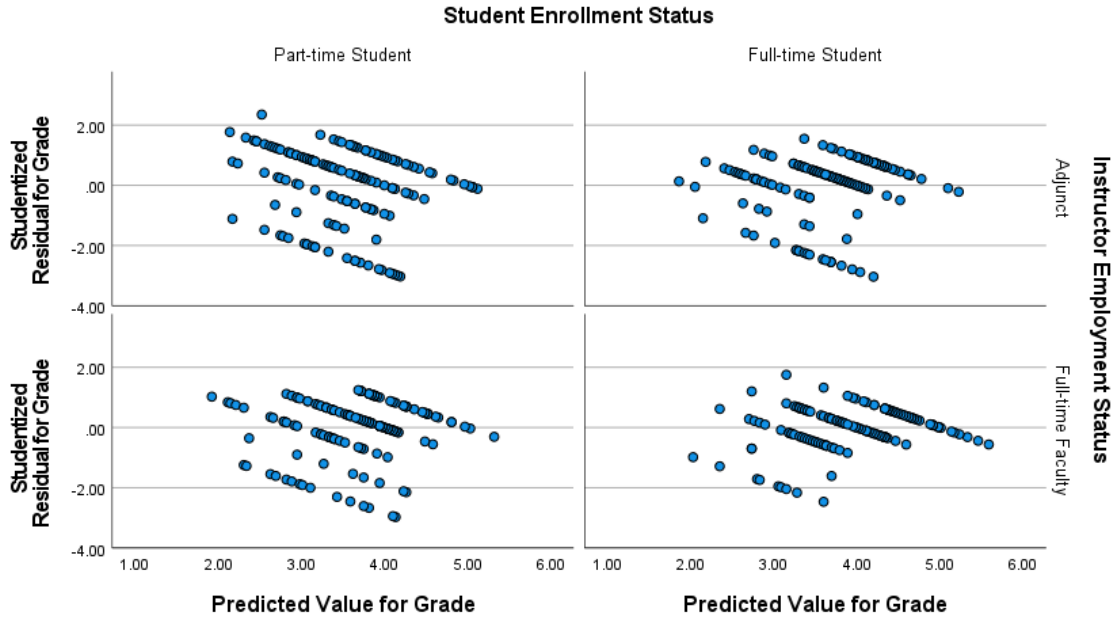
Note. *R* Squared = .298 (Adjusted *R* Squared = .290)

Homoscedasticity

The variance of error should be the same for all the combinations of the IV groups and the DV (Leppink, 2018). There was not homoscedasticity within each combination of the two IVs and the DV, as assessed by visual inspection of the studentized residuals plotted against the predicted values for each group**.** As shown in Figure 2, the assumption of homoscedasticity was not met and the value of the DV decreased as a function of the IVs. The two-way ANCOVA is robust enough to withstand risks associated with violating the assumption of homoscedasticity when samples are of equal sizes, as they were in this study (see Laraway et al., 2019). The risk associated with violating the assumption of homoscedasticity is the incorrect rejection of the null hypothesis (Laraway et al., 2019), which is a Type I error. Therefore, the results should be interpreted with caution.

Figure 2

Scatter Plot of Studentized Residuals for FYC Grade by Predicted Value for FYC Grade



Homogeneity of Variances

The variances of the residuals should be equal between each combination of groups of the IVs (Leppink, 2018). There was not homogeneity of variances, as assessed by Levene's test of homogeneity of variances ($p < .001$). The risk associated with violating the assumption of homogeneity of variance is the incorrect rejection of the null hypothesis (Laraway et al., 2019). Because the risk was minimal, I elected to continue with the two-way ANCOVA.

Significance of Unusual Data Points in IV Groups

In a two-way ANCOVA there should not be any significant unusual data points in any combination of groups of the two IVs. An inspection of the values of the studentized residuals indicated that there was one data point at -3.03; however, leverage values and

Cook's distance values indicated that there were no unusual points in any combination of the two IV groups. Therefore, I elected to continue with the two-way ANCOVA.

Normality

The residuals should be approximately normally distributed for each combination of groups of the IVs (Leppink, 2018). The residuals were not normally distributed as assessed by the Shapiro-Wilk's test ($p < .001$); however, the Shapiro-Wilk's test may be overly sensitive when the sample size is greater than 50, which in this case it is (see Laraway et al., 2019). A possible consequence of violating the assumption of normality is that the null hypothesis may be falsely rejected, however the two-way ANCOVA is sufficiently robust to violations of normality (Laraway et al., 2019).

Overall, testing of the assumptions yielded mixed results. As indicated in Chapter 3, the first four assumptions were met: (a) the DV (grades) was measured from 1 to 5 (b) IV_1 (instructor employment status) and IV_2 (student enrollment status) each include two groups, (c) the CV was measured from 50 to 150, and (d) each instructor and student was a member of one group. The assumptions of linearity and significance unusual data points were also met. The assumption of normality was not met according to the Shapiro-Wilk's test; however, the Shapiro-Wilk's test may be overly sensitive when the sample is greater than 50 as it was in this case (see Laraway et al., 2019). The assumption of homogeneity of regression slopes, homoscedasticity, and homogeneity of variances were not met. The potential consequence of not meeting the assumption of homogeneity of regression slopes is false retention of the null hypothesis. The potential consequence of not meeting the assumptions of homoscedasticity and homogeneity of variances is the false rejection of the null hypothesis (Laraway et al., 2019). Because the two-way ANCOVA is robust

enough to withstand risk associated with violations, I elected to continue with the two-way ANCOVA.

Results

The following RQ was used to guide this study: What is the difference in FYC semester course grades among FTIC degree-seeking students who took FYC from adjuncts and full-time faculty members? The two-way ANCOVA was performed to determine if there is a statistically significant difference in FYC semester course grades among FTIC degree-seeking students who took FYC from adjuncts and full-time faculty members. The two-way ANCOVA allowed me to control for student enrollment status (part-time or full-time) and academic ability prior to enrollment in FYC as extraneous variables.

Table 8 is a presentation of the unadjusted means and standard deviations for students' FYC grades according to their groups. Table 9 is a presentation of the adjusted means and standard deviations for students' FYC grades according to their groups.

Table 8

Unadjusted Means and Standard Deviations for Students' FYC Grades According to Instructor Employment Status and Student Enrollment Status

				95% Confidence Interval for Mean			
	N	Mean	Std. Deviation	Lower Bound	Upper Bound	Minimum	Maximum
Adjunct & PT	150	3.52	1.34	3.30	3.73	1.00	5.00
Adjunct & FT	150	3.61	1.30	3.40	3.82	1.00	5.00
FT Instructor & PT	150	3.65	1.20	3.45	3.84	1.00	5.00
FT Instructor & FT	150	3.91	1.07	3.74	4.08	1.00	5.00
Total	600	3.67	1.24	3.57	3.77	1.00	5.00

Unadjusted means are means that were not adjusted for the CV, while adjusted means are means that were adjusted for values on the CV (Sim, 2018). In other words, Table 8 is a presentation of means and standard deviations for students' FYC grades according to their groups without the adjustment of academic ability as measured by their PERT scores. Table 9 is a presentation of the means and standard deviations for students' FYC grades according to their groups with an adjustment of values on FYC grades as the DV for values on academic ability as measured by PERT scores as the CV. The mean for each group listed in Table 9 is the hypothetical score of each group if all study participants had the mean value of the CV, a PERT score of 104.19.

Table 9

Adjusted Means and Standard Deviations for Students' FYC Grades According to Instructor Employment Status and Student Enrollment Status

				95% Confidence Interval	
Instructor Employment Status	Student Enrollment Status	Mean	Standard of Error	Lower Bound	Upper Bound
Adjunct	Part-time Student	3.466[a]	.087	3.296	3.636
	Full-time Student	3.571[a]	.086	3.401	3.741
Full-time Faculty	Part-time Student	3.698[a]	.086	3.528	3.868
	Full-time Student	3.965[a]	.086	3.795	4.135

Note. Covariates appearing in the model are evaluated at the following values: PERT Score = 104.1992.

Comparing the unadjusted and adjusted means may provide insight into the influence of the CV (Sim, 2018). As shown in Table 8, there were observed differences between the unadjusted means of students' FYC grades according to their groups. The

unadjusted means for both part-time and full-time students who took FYC from adjunct faculty members were lower than both part-time and full-time students who took FYC from full-time faculty members. As shown in Table 9, after adjusting for students' academic ability as measured by PERT scores, there were observed differences between the adjusted means of students' FYC grades according to their groups. The adjusted means for both part-time and full-time students who took FYC from adjunct faculty members were lower than both part-time and full-time students who took FYC from full-time faculty members. Additionally, there was a decrease from the unadjusted means to the adjusted means for part-time and full-time students who took FYC from adjuncts, while there was an increase from the unadjusted means to the adjusted means for part-time and full-time students who took FYC from full-time faculty. To test the significance of these differences, a two-way ANCOVA was used as shown in Table 10.

As shown in Table 10, the *F* value of instructor employment status was 4.587 which was significant ($p = .033$). There were significant differences in FTIC degree-seeking students' FYC semester course grades based on instructor employment status. Therefore, the null hypothesis, there is no statistically significant difference in FYC grades among FTIC degree-seeking students who took FYC from adjuncts as full-time faculty members, was rejected.

Table 10

Two-way ANCOVA Test Results for Students' FYC Semester Grades According to Instructor Employment Status and Student Enrollment Status

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Instructor	7.04	1	7.04	4.58	.033

Student	4.68	1	4.68	3.05	.081
Instructor * Student	1.04	1	1.04	.67	.410
Error	914.86	596	1.53		
Total	9031.00	600			

Note. Computed using alpha = .05

Table 11

Frequency Distribution of FYC Grades by IV Group

		FYC Semester Grade					
		F	D	C	B	A	Total
Four Design Cells	Adjunct & PT	24	7	23	59	37	150
	Adjunct & FT	20	8	24	56	42	150
	FT Instructor & PT	15	8	30	58	39	150
	FT Instructor & FT	9	3	30	58	50	150
Total		68	26	107	231	168	600

To further support the rejection of the null hypothesis, Table 11 is a presentation of the total frequency distribution of FYC grades by IV group. As shown in Table 11, there were observed differences in the grades of students who took FYC from adjuncts and full-time faculty members. The most notable differences in FYC grades were that 44 students who took FYC from adjuncts received an F, while only 24 students who took FYC from full-time faculty received an F, only 47 students who took FYC from adjuncts received a C compared to 60 students who took FYC from full-time faculty, and only 79 students who took FYC from adjuncts received an A compared to 89 students who took FYC from full-time faculty.

My primary goal of conducting the two-way ANCOVA was to determine whether there was an interaction-effect between FYC instructor employment status as IV_1 and student enrollment status as IV_2 on FYC semester course grades for FTIC degree-seeking

students while controlling for a continuous CV, academic ability. As shown in Table 12, there was not a statistically significant two-way interaction effect between instructor employment status and student enrollment status after controlling for academic ability, $F(1, 595) = .871$, $p = .351$. Additionally, after the effects of other IVs were partialed out, 2.1% of the variance in estimated marginal mean was attributed to instructor employment status, while only .8% was attributed to student enrollment status, and .1% was attributed to an interaction of instruction employment status and student enrollment status. Therefore, I performed an analysis of the main effects for instructor employment status and student enrollment status. Table 13 is a presentation of the pairwise comparison.

Table 12

Tests of Between-Subjects Effects (IV_1, IV_2, and CV)

Source	Type III Sum of Squares	df	Mean Square	*F*	Sig.	Partial Eta Squared
Corrected Model	260.93	4	65.23	58.21	.000	.281
Intercept	49.78	1	49.78	44.43	.000	.069
Pert	248.16	1	248.16	221.47	.000	.271
Instructor	14.62	1	14.62	13.05	.000	.021
Student	5.19	1	5.19	4.64	.032	.008
Instructor * Student	.97	1	.97	.87	.351	.001
Error	666.69	595	1.12			
Total	9031.00	600				
Corrected Total	927.62	599				

Note. R Squared = .281 (Adjusted R Squared = .276)

Table 13

Pairwise Comparisons

		Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval for Difference	
					Lower Bound	Upper Bound
Full-time Faculty(i)	Adjunct (j)	.31*	.08	.000	.14	.48
Full-time Student (i)	Part-time Student (j)	.18*	.08	.032	.01	.35

Note. Based on estimated marginal means. Adjustment for multiple comparisons: Bonferroni. The mean difference is significant at the .05 level.

As shown in Table 13, the main effect of instructor employment status showed a statistically significant difference in adjusted marginal mean FYC semester course grades for students who took FYC from adjuncts versus full-time faculty members, $p < .000$. The main effect of student enrollment status showed a statistically significant difference in adjusted marginal means for part-time FTIC degree-seeking students versus full-time FTIC degree-seeking students, $p = .032$. The adjusted marginal mean for FTIC degree-

seeking students who took FYC from adjuncts was .31 lower than FTIC degree-seeking students who took FYC from full-time faculty. The adjusted marginal mean for part-time FTIC degree-seeking students was .18 lower than full-time FTIC degree-seeking student.

Summary

The RQ that guided this study was: What is the difference in FYC semester course grades among FTIC degree-seeking students who took FYC from adjunct and full-time faculty members? To address the RQ, I investigated the following null hypothesis: There is no statistically significant difference in FYC semester course grades among FTIC degree-seeking students who took FYC from adjuncts and full-time faculty members. The results of the two-way ANCOVA were statistically significant based on an alpha level of .05, therefore I rejected the null hypothesis (p =.03).

In this chapter, data collection, assumptions testing, data analysis, and results were provided. These results extend knowledge of the current literature regarding differences in students' grades in the gateway English course FYC that may be influenced by instructor employment status and deliver credible results for Chapter 5 discussion while providing a basis for recommendations for future research, as well as implications for positive social change. Because some assumptions were not met, it is possible to reject the null hypothesis in error (Type 1 error). Therefore, I interpreted the results, which will be discussed in Chapter 5, with caution.

Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of the study was to determine if statistically significant differences in FYC semester course grades existed among FTIC degree-seeking students at LCC who were in adjunct and full-time faculty FYC course sections. The casual comparative design of the study allowed me to conclude that FYC grades differed among groups with respect to the IVs (instructor employment status and student enrollment status) without concluding that the IVs caused the differences (see Fulmer, 2018). Deidentified student records for the 2016, 2017, and 2018 cohorts of FTIC degree-seeking students were provided by LCC and proportional stratified random sampling was used to achieve a sample of 600, 200 from each cohort. A two-way ANCOVA was conducted to compare FYC semester course grades (DV) based on instructor employment status (IV_1) while controlling for student enrollment status (IV_2) and academic ability prior to enrollment in FYC (CV). The FYC grades of FTIC degree-seeking students who were in adjunct and full-time faculty course sections were compared and found to be significantly different. In this chapter, I provide an interpretation of the findings, consider the limitations of the study, make recommendations for further research, and discuss the study's implications for positive social change and future practice.

Interpretation of the Findings

Adjunct faculty are typically excluded from collaborative professional development opportunities where they can access instructional and institutional resources. In this study, I sought to address the influence that employment status of FYC adjunct and FYC full-time faculty had on students' FYC semester course grades by determining whether there were differences in FYC semester course grades based on

FYC instructor employment status while controlling for student enrollment status and academic ability. An analysis of FYC semester course grades for the population under study demonstrated that FYC semester course grades differed among students who took FYC from adjuncts compared to full-time faculty members. The grades of participants who took FYC from adjuncts were lower than participants who took FYC from full-time faculty members, both before and after controlling for participants' enrollment status and academic ability prior to enrolling in FYC. My findings confirmed the negative effect adjunct faculty can have on the undergraduate education. As described in the literature review (Chapter 2), instructor employment status can negatively influence student success, particularly in gateway courses as adjuncts teach most gateway courses across disciplines (Ott & Dippold, 2018; Ran & Sanders, 2019). Ran and Sanders (2019) found that students who took gateway English courses from adjuncts were less likely to enroll in and pass the next course in the sequence than students who took gateway English courses from full-time faculty. Flanders (2017) found that students who earned a 3.0 or higher GPA during their first semester of enrollment were127 times more likely to enroll for a second semester than students who earned a 2.0 or lower GPA during their first semester. Just over 11% of the participants who took FYC from full-time faculty received a D or F while nearly 20% of the participants who took FYC from adjuncts received a D or F. An application of Ran and Sanders' (2019) and Flanders' (2017) finding to the study site would mean that FTF retention rates would be presumably lower for FTIC degree-seeking students who took the gateway course from adjuncts instead of full-time faculty in part due to the employment status of the FYC instructor.

Most adjuncts, because they are typically excluded from departmental CoPs, often operate with minimal knowledge of and access to instructional and institutional resources (Bakley & Brodersen, 2018; Bickerstaff & Chavarin, 2018). The lack of resources most adjuncts operate with has created obstacles to instructor effectiveness and student learning (Goldstene, 2015; Witt & Gearin, 2020). The findings of my study confirmed the influence excluding FYC adjunct faculty from CoPs may have on student learning, as FYC semester course grades were lower for participants who took FYC from adjuncts than participants who took FYC from full-time faculty. The literature I reviewed in Chapter 2 documented the benefits to faculty and students of including adjunct faculty in professional development that is grounded in the tenets of Lave and Wenger's CoP model. ATD (n.d.), Bickerstaff and Chavarin (2018), Carney et al. (2016), Hoyert and O'Dell (2019), Kezar and Gehrke (2017), and Severs (2017) all documented positive correlations between faculty participation in CoPs and student success. Effectively addressing the problem of the trend of decrease in FTIC degree-seeking cohort FTF retention rates at the study site requires employing best practices. Best practice in education are strategies supported by research (Carless & Boud, 2018). A consensus exists among researchers that best practices related to faculty development include collaboration.

Limitations of the Study

As I detailed in Chapter 1, there were three limitations related to the design of the study. Those design limitations were the location of the study, the gateway English course the study focused on, and the criteria applied to construct the sample. Because of

the design limitations, the results of the study may not be generalizable to institutions that do not share demographics with the study site, including type and location of institution, or whose participants are other than FTIC degree-seeking students who took a gateway course in the same discipline as the sample used in this study. Also described in Chapter 1 was one limitation related to methodological weakness. The methodological weakness of this study was that a casual comparative design was used. A casual comparative design only allows researchers to conclude that differences among or between groups exist, not if or to the degree that variables caused the differences among or between groups (Fulmer, 2018). Therefore, although semester course grades were lower for FTIC degree-seeking students who took FYC from adjuncts than FTIC degree-seeking students who took FYC from full-time faculty, no conclusion was drawn as to variables that may have influenced the differences in grades. I cannot conclusively determine that the differences I found were a result of the lack of resources available to FYC adjunct faculty at LCC due to their exclusion from departmental communities of practice as there could be other causes that the study design did not uncover.

As I reported in Chapter 4, I encountered limitations during data collection. LCC, as the study site, provided a total of 3,410 FTIC degree-seeking students' records from the 2016, 2017, and 2018 cohorts, however, only 1,536 of those records were complete. There were 1,874 records that did not include students' PERT scores. The absence of PERT scores was attributed to exemptions pursuant to Senate Bill 1720 of the state statutes which became effective in 2013. Students who entered ninth grade in a Florida public school in the 2003-2004 school year or after and earned a Florida standard high

school diploma, or students who are serving as active-duty members of any branch of the United States armed services are not required to take the PERT test. It was not known if those students exempt from the PERT may be different from the participants in a systematic way, which may have introduced sampling bias into the study. Although PERT scores were not included in the records of 1,874 students, I was able to select 200 participants from each cohort equally distributed based on the independent variables, FYC instructor employment status (IV_1) and student enrollment status (IV_2).

As I reported in Chapter 4, some statistical assumptions were not met which may have weakened the strength of the two-way ANCOVA. The assumption of homogeneity of regression slopes, homoscedasticity, homogeneity of variances, and normality were not met. A possible consequence of not having met the assumption of homogeneity of regression slopes was the false retention of the null hypothesis which was: There is no statistically significant difference in FYC semester course grades among FTIC degree-seeking students who took FYC from adjuncts and full-time faculty members. The consequence of not having met the assumption of homoscedasticity and homogeneity of variances was the false rejection of the null hypothesis. However, the two-way ANCOVA is sufficiently robust to violations (Laraway et al., 2019). As described in Chapter 4 and shown in Table 11, the observed differences in the grades of students who took FYC from adjuncts and full-time faculty members supported the rejection of the null hypothesis.

Recommendations

Despite the limitations, this study provides a comparison of student achievement in the gateway college English course FYC based on instructor employment status while controlling for student enrollment status and academic ability prior to enrollment in FYC which has been absent from the body of knowledge. This study provides evidence that differences in student success in FYC exist between students who took FYC from adjuncts and full-time faculty. Researchers have linked gateway course success to retention rates (Belfield et al., 2019; Combs, 2016; Flanders, 2017; Nicholes & Reimer, 2020). Researchers have linked instructor employment status to future student success (Goldstene, 2015; Kimmel & Fairchild, 2017; Ran & Sanders, 2019). Researchers have linked student enrollment status to retention (CCCSE, 2017; Juszkiewicz, 2017).

Further research could extend this study. I compared FYC semester course grades among FTIC degree-seeking students who took the gateway English course from adjuncts and full-time faculty while controlling for student enrollment status and academic ability prior to enrollment in FYC. A comparison of retention and completion rates for the same population based on FYC instructor employment status while controlling for FYC semester course grades would provide insight regarding the influence of instructor employment status in the gateway English course may have on future student success, thus institutional success. A comparison of FYC semester course grades, retention rates, and completion rates for the same population based on adjunct faculty who did and did not have access to instructional and institutional resources via inclusion in departmental communities of practice while controlling for extraneous factors such as teaching

experience and length of employment would provide insight regarding the influence instructional and institutional support of adjunct faculty may have on student success, this institutional success.

Implications

This study contributes to the body of knowledge concerned with addressing the problem of student retention by providing evidence related to a factor that may negatively influence student retention. Institutional administrators can use the evidence provided in the study, showing the FYC semester course grades of FTIC degree-seeking students who were in adjunct FYC course sections were lower than their counterparts who were in full-time faculty FYC course sections, to address disparities in student success that may be connected to the employment status of instructors in the gateway English course. For example, administrators may investigate whether a knowledge gap exists between content knowledge and teaching knowledge about content among FYC adjunct faculty and, if so, incorporate professional development practices to designed increase communication and collaboration among all FYC faculty (Severs, 2017). Because LCC in an ATD Leader College, LCC may participate in ATD's Engaging Adjunct Faculty in the Student Success Movement initiative. The initiative was designed to guide institutions in the development of practices and policies to improve instruction provided by adjunct faculty (ATD, n.d.) through collaboration and communication via communities of practice and other means (Bickerstaff & Chavarín, 2018).

This study is intended to create positive social change by serving as a catalyst to improve the practice of FYC faculty at LCC, thus improving the education of LCC's

FTIC degree-seeking student population. The study provides a structure to explain differences in student achievement between or among FTIC degree-seeking students who were in adjunct and full-time faculty course sections. Having evidence documenting disparities in student achievement based on FYC instructor employment status should demonstrate to LCC administrators the importance of increased support on the part of LCC for of all FYC faculty who, in turn, influence the success of FTIC degree-seeking students. Ideally, LCC administrators will enhance institutional efforts to support and develop all FYC faculty so all FYC faculty may support and empower FITC students in ways that help them achieve their educational, professional, and civic goals. FTIC students would then be equipped to positively influence future generations through their own positive social change endeavors.

Conclusion

Student success and institutional success are contingent upon student retention (Burke, 2019; CCCSE, 2017; Juszkiewicz, 2017). Efforts to improve retention must include strategies to improve student success in gateway courses (Matthews & Newman, 2017) because gateway course success influences student retention (Belfield et al., 2019; Flanders, 2017). FYC is a gateway course that influences student success (Combs, 2016; Flanders, 2017; Nicholes & Reimer, 2020). Although adjunct faculty teach the majority of FYC course sections (Buch et al., 2017; Ott & Dippold, 2018; Ran & Sanders, 2019), most do so without institutional support or inclusion in departmental collaboration (Bakley & Brodersen, 2018; Bickerstaff & Chavarín, 2018). The exclusion of adjunct faculty from collaboration can have a negative influence on student success (Callier et al.,

2015; Cydis et al., 2017; Goldstene, 2015; Kimmel & Fairchild, 2017). My findings support the findings of prior research. Best practices related to the professional development of faculty are based on collaboration (ATD, n.d.; Bickerstaff & Chavarín, 2018; Graziano et al., 2016; Severs, 2017).

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