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# Effect of Developmental English Faculty Instructors' Employment Status on College Student Performance in a Freshman Composition Course

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# Walden University

College of Psychology and Community Services

This is to certify that the doctoral dissertation by

Kauscha M. Howard

has been found to be complete and satisfactory in all respects, and that any and all revisions required by the review committee have been made.

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> > Walden University 2022

Abstract

Effect of Developmental English Faculty Instructors' Employment Status on College

Student Performance in a Freshman Composition Course

by

Kauscha M. Howard

MS, Walden University, 2018

MS, Grand Canyon University, 2013

BA, University of Maryland Baltimore County, 1997

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Psychology

Walden University

August 2022

#### Abstract

This research attempted to determine whether faculty instructors' employment status played a role in the success of students who are not college ready. The purpose of this study was to determine whether developmental English faculty instructors' employment status had an effect on grades in a freshman composition course (English 101) among community college students while using functional role theory as the theoretical foundation. The quantitative study utilized two-way analysis of covariance. The research used archival data for 2,364 community college students to determine if employment status and gender differences among developmental English faculty instructors had an effect on subsequent grades in English 101. There was a significant difference in English 101 course grades among college students who previously completed developmental English courses, depending on the gender of developmental English faculty instructors (female instructors giving higher mean course grades), when controlling for student placement test scores and ages. The overall model was statistically significant, F(5,2358)= 2.66, p = .02, but accounted for less than 1% of the variance ( $\eta^2 = .006$ ) of the student's English 101 course grade. Following the framework of function social theory, the role of the part-time and full-time instructors' interaction with the student was important to the role of the student's success. This research informs educational leaders with insights into future faculty instructor-related studies thus contributing to potentially increasing the number of students who complete a college degree program. Future research should determine some of the key qualities of creating these important instructor and student's interactions leading to a positive social change for the community college population.

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# Dedication

I want to dedicate this dissertation to my brother, Leon Howard Junior. Leon Howard Junior was a talented athlete and a focused student who had a lifetime of accomplishments behind him and was heading towards a lifetime of many more accomplishments. I know he would have been proud of his little sister completing such a daunting task. He loved us and we love him. He would have been my greatest supporter helping me to complete this challenging task. May he continue to be the Angel that protects the family.

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#### Chapter 1: Introduction to the Study

Community colleges play a pivotal role in educating students who began their college journey with skills below college-level in English and math. Furthermore, community colleges have become home to many students who are unable to complete the entrance exams for 4-year colleges. Students who enter any college take a placement test to determine English and math levels, in the form of a standardized exam to measure their ability to complete college-level courses (Fields & Parsad, 2012). Students who are not at college-level in these subjects may or may not need to take developmental courses (Pierce, 2005). Community colleges recommend students take developmental courses if their placement test scores do not meet college-level standards. College-ready students are students who can enroll in a college-level course without having to take any developmental courses (Conley, 2007). In general, a score above a set cutoff score advances a student into college-level courses, whereas a score below the cutoff indicates a need to take developmental courses (Belfield & Crosta, 2012). Community colleges use these scores to determine the placement of students as being at or below college-level (Bailey, 2008; Fields & Parsad, 2012).

The number of students who must complete developmental courses increases each year with most of the population consisting of racial-ethnic minority students, firstgeneration students, and older students returning to college after an extended absence (Bailey, 2009). Providing help for these community college students may lead to a positive social change for the communities, such as an increase in employee advancement due to obtaining college degrees.

Developmental courses are a vital step in many students' college careers and some policymakers believe such courses should be mandatory at the community collegelevel (Pratt, 2017). Bailey et al. (2010) estimated that only one third of students complete the developmental courses that would enable them to take college-level courses. Bailey (2009) confers that developmental courses provide the foundation that students need in most general education courses. Additionally, Bailey noted that a majority of community college students need at least one developmental course and that community college faculty instructors have the task of producing students who have the skills to complete college-level work. Attwell and al. (2006) found that students with weak academic skills who complete developmental courses are more likely to receive a degree. If students do not learn the basics during their time in developmental courses at the community collegelevel, they do not have a chance to progress to a 4-year college and beyond. Developmental education provides entering college students with weak academic skills the opportunity to develop the skills needed for college-level coursework (Bailey, 2009). McCabe & Day (1998) indicated that advocates believe that developmental education courses are effective in improving developmental students' access to higher education.

The inability to progress beyond community college hinders students' ability to better position themselves in the marketplace and slows their upward mobility to a higher socioeconomic status level. Numerous factors contribute to students failing to complete a 2-year community college degree. Attwell et al. (2006) examined the role developmental courses play in the students' ability to successfully complete a 2-year community college degree. Faculty instructors play a pivotal role in developmental students' ability to succeed (Xu, 2019). Although researchers have studied many factors, the gender and employment status of English faculty instructors in developmental courses are factors that have yet to be studied and remains unclear. This study includes data from spring 2015 collected by a community college located in the mid-Atlantic region of the United States of America.

### Background

Developmental courses are becoming an integral part of the community college system. Some researchers have studied factors that positively or negatively affect students' success in developmental courses (Bremer et al., 2013; Crisp & Delgado, 2014; Schnee, 2014). Others have studied faculty instructors' role in students' success in developmental courses and developmental students' ability to obtain their community college degree (Bettinger et al., 2013; Lyde et al., 2016). Crisp & Delgado (2014) argued that if developmental students complete a freshman English course, English 101 (the freshman composition course, usually the first English course completed by incoming college students); they are more likely to complete a 2-year community college degree. A 2-year degree helps students with the next steps in their life journey, whether the journey includes attending a 4-year institution or moving into a career that incorporates opportunities for advancement.

Keniston (2016) examined factors that affect students in a developmental math course. The research indicated that having a part-time faculty instructor increased the likelihood of students passing the developmental math course. In addition, the students who were in classrooms led by part-time faculty instructors performed especially well in the lower levels of the developmental math courses. This study was an expansion of Keniston's research by exploring whether this phenomenon also occurs in English courses.

#### Problem

As noted above, a need exists to expand Keniston's (2016) study on developmental courses at community colleges. With a college degree becoming more relevant in the workforce, individuals are returning to school or attending schools to find better jobs. Through this research, I studied whether instructors' gender and employment status in developmental English courses have a subsequent effect on student grades in introductory college-level English courses, namely English 101. Researchers have studied many factors relating to developmental courses (Keniston, 2016), but not the employment status of developmental English faculty instructors or gender differences in instructors. Some researchers have studied factors that positively or negatively affect students' success in developmental courses (Bremer et al., 2013; Crisp & Delgado, 2014; Schnee, 2014), whereas others have studied faculty instructors' role in the students' success in developmental courses and the developmental students' ability to obtain their community college degree (Bettinger et al., 2013; Lyde, 2016). Researchers have labeled part-time faculty instructors as unavailable to colleagues and students, and as lacking organizational commitment, which contributes to poorer outcomes for students (Bettinger & Long, 2010; Jaeger & Eagan, 2009; Wickrun & Stanley, 2000). Additionally, researchers have noted that male instructors' students have a higher grade than female

instructors' students (Basow et al., 2013). More research needs to focus on the reasons why developmental students are having difficulty completing college-level courses, including instructors' gender differences. Whether gender differences and the employment status of developmental English course faculty instructors are factors in students' grades for English 101 remains unknown, but determining whether faculty instructors' employment status plays a role in the success of developmental students may increase the graduation rate of community college developmental students.

#### Purpose

The purpose of this study was to determine whether employment status and gender differences among developmental English faculty instructors have an effect on subsequent grades in English 101 among community college students. Using a quantitative, nonexperimental, retrospective, research design and analysis, I used archival data from a community college in the mid-Atlantic region of the United States that includes developmental English faculty instructors' employment status and developmental students' grades for English 101. The dependent variable was the students' subsequent grades in English 101. The independent variables were the developmental English instructor's employment status (full-time faculty instructors or part-time faculty instructors) and the instructor's gender (male, female, or other). Developmental students' placement test scores and students' ages were included as covariates in an attempt to control for potentially confounding variables. In addition, the archival data included demographic information (gender and race or ethnicity) for both students enrolled in the developmental English course and for developmental faculty instructors. This research broadened the findings of previous research by examining the status of faculty instructors who teach underprepared or unprepared developmental English courses.

## **Research Question and Hypothesis**

Given the previously stated purpose, variables, and population, I sought to investigate the following research question and its associated hypotheses:

RQ: Is there a significant difference in English 101 course grades among community college students who previously completed developmental English courses, depending on the gender and employment status of faculty instructors who taught the prerequisite developmental English courses, when controlling for student placement test scores and ages?

 $H_01$ : There is no significant difference in English 101 course grades among community college students who previously completed developmental English courses, depending on the gender of faculty instructors who taught prerequisite developmental English courses, when controlling for student placement test scores and ages.

 $H_{\rm a}1$ : There is a significant difference in English 101 course grades among community college students who previously completed developmental English courses, depending on the gender of faculty instructors who taught prerequisite developmental English courses, when controlling for student placement test scores and ages.

 $H_02$ : There is no significant difference in English 101 course grades among community college students who previously completed developmental English courses, depending on the employment status of faculty instructors who taught prerequisite developmental English courses, when controlling for student placement test scores and ages.

 $H_a$ 2: There is a significant difference in English 101 course grades among community college students who previously completed developmental English courses, depending on the employment status of faculty instructors who taught prerequisite developmental English courses, when controlling for student placement test scores and ages.

 $H_0$ 3: There is no significant interaction effect between instructor employment and gender on English 101 course grades among community college students who previously completed developmental English courses when controlling for student placement test scores and ages.

 $H_a$ 3: There is a significant interaction effect between instructor employment and gender on English 101 course grades among community college students who previously completed developmental English courses when controlling for student placement test scores and ages.

#### **Theoretical Foundation**

The theoretical foundation for this study was the functional role theory (Parsons & Shils, 1951). Function role theory focuses on the behaviors of individuals who had a particular social position within a system. The assumption within functional role theory is that people play a role as actors in a system and learn how to conduct themselves within the system (Biddle, 1986). Each type of faculty instructor (full-time and part-time) performs a vital role in the community college system. The expectation for full-time

faculty instructors was that they take on a greater role in their department than part-time faculty instructors do. Most full-time faculty instructors carry a certain teaching load (i.e., a certain number of courses they must teach) and may serve the college community by participating in professional development or by mentoring newly employed community college faculty instructors.

Xu (2019) recognized that a difference exists in the support mechanisms provided to part-time and full-time faculty instructors. For example, part-time faculty instructors have less of a commitment to a college because of the number of hours they must spend on campus. When a faculty instructor's role is defined as part-time; they spend a minimal amount of time on campus. The root of functional role theory is that actors behave in ways that are predictable depending on their respective social identities in the situation (Biddle, 1986). Using functional role theory as the base for this research, I investigated whether a difference in the role of full-time and part-time faculty instructors affects the success of English developmental students.

#### **Nature of Study**

This study used a quantitative, nonexperimental design in an attempt to investigate what effect if any, developmental English faculty instructors' gender and employment status have on student grades in English 101 courses. The independent variables was developmental English faculty instructors' employment status with two levels: full-time or part-time, and three levels of gender: female, male, or other. The dependent variable was developmental students' grades in English 101 measured on a traditional 4-point scale; the letters A, B, C, D, and F, representing the numerical values 4 through 0. There are no pluses or minus on the scale.

Using a two-way analysis of covariance (ANCOVA), I analyzed archival data that included developmental students' placement test scores and age as covariates to control for these two potential confounding variables. A placement score is an important factor because students who have lower placement courses have a harder time completing college course work. Belfield and Crosta (2012) reported that placement test scores are positively associated with college credit accumulation. Student age is important because it distinguishes between whether a student is a traditional student or a nontraditional student. Nontraditional students have multiple roles (e.g., spouse, parent, employee, and student) and have been out of high school for at least 1 year (McCormick & Barnett, 2011). Nontraditional students often have more obligations than traditional students, which could add to the factors that hinder the successful completion of the developmental course. ANCOVA was appropriate for determining whether a significant difference exists in developmental students' English 101 course grades depending on the developmental English faculty instructors' employment status and gender, given the previously identified covariates.

This research utilized archival data from a mid-Atlantic community college. The college serves one county and has six campuses in addition to offsite locations. I asked the Research and Planning Department of the community college to retrieve data from the colleges' database for students who successfully completed developmental courses in fall of 2013. The data consisted of grade records from over 100 unique teachers who

taught one of the almost 300 sections of the English developmental course offered at the college. I obtained permission to use the data from this study college by completing the community colleges institutional review board application process. I received a deidentified spreadsheet from the college's Research and Planning Department that contained a row for each student who completed developmental English during fall 2013 and completed English 101 between winter 2014 and spring 2015. The data columns included the student's English placement score (covariate), student's age (covariate), student's gender (demographic variable), student's race or ethnicity (demographic variable), student's final grade in English 101 (dependent variable), employment status of the student's developmental English instructor (independent variable), and instructor's gender (independent variable).

# Definitions

The following definitions were relevant to this study and come primarily from relevant studies and Research and Planning Department at the community college that supplied the archival data used in this study:

*English faculty instructors' employment status* is either *full-time* or *part-time*. Trucker (2014) defines a part-time instructor as someone who is temporary and can instruct no more than 10.5 credits per semester (fall and spring). Any instructor who has signed a contract with the school for 1–3 or 5 years and carries at least 15 credits per semester (fall and spring) is a full-time instructor. The community college staff includes 455 full-time faculty instructors and 2,962 part-time faculty instructors. *Developmental students*, the key stakeholders in this study, refers to anyone who successfully completed at least one English developmental course in fall 2013. Bettinger et al. (2013) noted that developmental students are ill-prepared to understand college course work. Additionally, these students were in need of bridge programs and academic support to reach the level of being prepared for college-level work. The developmental course became the necessary bridge program to college-level courses.

A *developmental course* was defined by Trucker (2014) as any English, reading, or math course that is the sub-100 level that students place in after taking a placement test. Colleges use these tests to determine whether a student has sufficient knowledge to start in a college-level introductory course or if the student needs placement into a developmental course. The developmental course becomes a prerequisite for English 101. Eighty-one percent of the general population of students entering the college needs to take at least one developmental course (Trucker, 2014).

*English 101* was the first English course that college-ready students must take as part of their general education requirements for completing a 2-year degree at a community college (Trucker, 2014). Students at the community college are considered college ready if they have a transcript from another college, an SAT score (within 2-years) of 500 or above in critical reading and writing, or ACCUPLACER placement test results over 90 (Trucker, 2014). College-ready students are ready to take on the course work needed to complete a college degree whether they took a developmental course or whether their test score led to an English 101 placement without having to take developmental courses.

*Gender of faculty instructor* was self-reported as either female, male, or other. No longer can we take for granted the gender of anyone and little research has been done on this concept of gender (Schudson et al., 2019). Gender is often used to refer to an idea that has become fluid and cannot be separated by social constraints or even biological components (Galupo et al., 2017).

# Assumptions

This study assumed a sufficient amount of valid and reliable data was previously collected by the community college's Research and Planning Department, who in turn provided me with all data relevant to this study. Additionally, all students included have successfully completed at least one developmental English course. Lastly, it is assumed all faculty instructors have completed some type of professional development course as part of their continued employment. These assumptions were necessary for the completion of this research because all students and faculty instructors needed to possess the basic criteria for inclusion in the study.

#### **Scope and Delimitations**

The scope and delimitations of this study included two elements. The first element was the study population in one community college in the mid-Atlantic area. The community college has six locations around the county with over 60,000 students. The second element was that the population of the study has successfully completed a developmental English course. All students in the study have completed a developmental English course and have attempted an English 101 course. This quantitative study included one important delimitation. The archival data included student grades for all classes taught on the six main college campuses, but not classes held offsite (high schools or businesses). The reasoning behind this delimitation was to obtain a better profile of typical community college students. Students in high schools or business settings may or may not attend community college and, instead, decide to enroll in a 4-year college or to not attend college at all. By taking this action, I can potentially make speculative comparisons between similar community college populations of incoming freshman students across the country.

### Limitations

A potential limitation of this study was that the archival data do not provide completed descriptive information for the faculty instructors. For example, I cannot determine whether the instructor taught at other schools or the amount or kind of training the teacher received in teaching developmental education. The amount of work outside the classroom that an instructor completes at home or a different location likely has an impact on their ability to instruct the developmental courses for this community college. Another limitation was that I did not collect any data on other factors that may affect the students' ability to pass college-level courses, such as family support or whether the student held a job. There were no biases that could influence study outcomes. A reasonable assumption can be made that all students and faculty instructors complete work outside of the community college.

#### Significance of the Study

This research may fill a gap in the literature by studying two factors, developmental English faculty instructors' employment status and faculty instructor's gender. Along with previous research, this research may lead to an understanding of another factor that contributes to students' success in community college. English faculty instructors' employment status may influence course grade outcomes among developmental students who complete English 101, which is important because the research aided in students having the ability to complete college-level courses. This research could potentially provide community college administrators and other stakeholders (e.g., faculty instructors, policymakers, and students) with insights into future faculty instructor-related studies and actions (e.g., instructor training) and thus contribute to potentially increase the number of developmental students who complete a 2-year community college degree program.

#### Summary

Community colleges have become a forerunner in developmental education for college students. Many governments have mandated this role to community colleges because they are better equipped to handle the students who arrive underprepared or unprepared for higher education. Although community colleges are equipped to handle the underprepared or unprepared developmental students, graduation rates for this specific community are lower than that of college-ready students. Researchers have studied the numerous factors in the imbalance in the rise through the higher education process between college-ready level higher education students and their peers, developmentally underprepared and unprepared students. This research studied two of these factors: employment status of developmental faculty instructors and gender of faculty instructors. This research seeks to expand on Keniston's (2016) research dealing with developmental math faculty instructors' success with developmental students passing college-level courses by looking at the success of developmental English faculty instructors' developmental students' ability to pass college-level courses.

Chapter 2 contains a complete review of the literature relating to higher education (community colleges and 4-year universities and colleges). It discusses the diversity among college students (i.e., traditional and returning), the method of receiving education (i.e., online or brick and mortar), and the racial ethnic identity in the college student population (i.e., first-generation, international, dual-enrollment). Additionally, there is a discussion on the assessment of underprepared or unprepared students in developmental courses. Along with introducing faculty-student interaction, mode of delivery, and faculty instructors' gender and employment status of faculty instructors. The focus for this research is on the need for developmental courses at the community college-level and the need for faculty instructors to invest effort into making developmental courses the foundation for college-level courses that students must complete for college success.

#### Chapter 2: Literature Review

#### Introduction

Community colleges and universities serve over 19 million students a year (National Center for Education Statistics, 2021): 11.3 million females and 8.6 million male students. Additionally, the composition of the students' background varies in ethnicity. Of the over 19 million students, 10.5 million are White, 3.6 million Hispanic, 2.6 million Black; 1.3 million of Asian and Pacific Islander, 0.7 million are of mixed race (two or more races), and 0.1 million are American or Alaskan Native Indians (National Center for Education Statistics, 2019). These diverse college students have a multitude of options of schools to attend.

Four-year universities enroll over 13 million students (National Center for Education Statistics, 2019). These are students from diverse backgrounds who are mostly traditional college students. Of the students who attend 4-year universities, 67% are between the ages of 18 and 24 (Sanem et al., 2009). Universities are expected to graduate 1,975,000 students with bachelor's degrees in the 2019–2020 school year (National Center for Education Statistics, 2019.) For students who are economically challenged, community colleges have become a practical option.

The community college student population is a combination of diverse backgrounds. One out of three high school students enrolls in community college (Weiss et al., 2015). The community college campus includes students from different ethnicities, levels of college preparedness, socioeconomic status, nationality, and career backgrounds. These colleges serve a diverse population of students of which a large share includes females, minorities, and students over the age of 25 (Felix & Pope, 2010; Tolliver & Miller, 2018). Half of the community college students are ages 18-24, much less than the percentage of traditional students who attend 4-year universities (Sanem et al., 2009). In addition, economically challenged traditional students have taken to the community college. People who attend 2-year colleges are likely to be older, female, people of color, from low-income families, attending community college part-time, and working full-time (Sanem et al., 2009). Given this new diverse population, community colleges have committed to being open for all and becoming responsible for educating an increasing number of higher education students (Felix & Pope, 2010; Pratt, 2017). Community colleges have the ability to adapt to the changing needs of both the nontraditional students and that of the traditional college students.

Community college students are either entering community college straight from high school or returning to college from the workforce because of career advancement barriers or unemployment. Community college students (traditional and nontraditional) may intend to receive a 2-year degree; however, there is a lack of a well-defined pathway for higher education students to start and complete a 2-year community college degree (Childs, 2017). According to Ashraf et al. (2018), choosing a major suitable for underprepared or unprepared developmental students increases their chances of graduation. Even if the students change their major, the student is more likely to graduate (although it takes longer). Community colleges need to increase their effort in students selecting a major and completing that major. Major choice affects the enjoyment, grades, and graduation rates of underprepared or unprepared developmental higher education students (Baker et al. 2018). The experience of the higher education student must be aligned with the major and the career (Stuart et al., 2014).

Because community colleges give returning students who have other responsibilities outside of education another route for returning to college, more nontraditional students are returning to complete a certificate or degree. Many students return to school for career advancement or certificates. Carruthers and Sanford (2018) noted that returning adult students are looking to advance in their careers by adding skills in community colleges that are necessary for advancement. Community college serves a diverse population looking for a wider range of certificates and programs than offered at 4-year universities or colleges (Clotfelter et al., 2013).

Mayer et al. (2016) noted that a college degree is a key step in getting employment and receiving higher earnings for the nontraditional student. Furthermore, community colleges have become a lower-priced option for many traditional students and nontraditional students who want to increase their ability to ask for a promotion or higher salaries (Hillman, N & Orians, 2013). Especially during times of financial instability, more students who are nontraditional are returning to community colleges to expand their job and salary possibilities (Hillman & Orians, 2013). Two-year colleges are a viable option for economically challenged students, underprepared or unprepared developmental students, and those wanting to acquire useful skills for career advancement. Broton (2019) added that community colleges are repackaging student aid to make lower degree goals attractive to developmental students. They are becoming an option because of their ability to engage all students in a varied and wide comprehensive list of courses and programs.

Community colleges have become a forerunner for online or distant learners (Lei & Lei, 2019). Students have taken to the online or hybrid classroom community because of the ease of completing coursework on your own schedule and not having to travel to the community college campus. Courses are given through web-based sites such as Blackboard and Canvas. These sites include components such as chat rooms, threaded discussion groups, as well as other course resources (Ward, 2004). One in every six college students (16.67%) is enrolled exclusively in online courses (Lenderman, 2019).

The majority of college students still attend traditional brick and mortar colleges. Traditional brick and mortar are where most students complete face-to-face courses. Face-to-face courses are where faculty instructors and students physically travel to the community college campus to learn in a classroom (El Mansour & Mupinga, 2007). In the classroom, students who attend passive lectures are less likely to complete online assignments than their online counterparts (Riffell & Sibley, 2004). Especially in large introductory courses where students attend classes at a lower rate than their online counterparts. Traditional students are more likely to attend brick and mortar colleges.

Traditional students are college students who are coming straight from high school or a gap year. A gap year is a yearlong break before or after college (O'Shea, 2013). Traditional undergraduate students are students who graduated from high school in the previous 1–2 years. The population of traditional students (18–22 years of age) is declining, while nontraditional students (ages 23 and older) are becoming the new

undergraduate of the college system (National Center for Education Statistics, 2021). A full-time student who lives on campus is typically a traditional college student (Linder et al., 2018). Because of the popularity of community colleges with traditional students, the definition of the typical traditional college student needs to change to include these community college students.

Community college students who are returning from the workforce because of career advancement or unemployment are considered nontraditional students. Nontraditional students are returning to college after some time away from the education system. Hayes et al. (2018) suggested that nontraditional students have some of the following characteristics: delayed postsecondary education enrollment, current part-time enrollment in community college, multiple dependents, and full-time employment. These characteristics lead many nontraditional students to have numerous responsibilities outside of furthering their education (Hoffman & Lance, 2018). Priode (2019) recognized that nontraditional students struggle with school, work, and life balance. Despite increased access to higher education, nontraditional students are having trouble completing a certificate or 2-year degree (Stuart et al., 2014). The nontraditional student dropout rate is an ongoing concern for community colleges, and the behavior of nontraditional students could easily be misinterpreted and their circumstances surrounding continuing higher education undervalued (Kearney et al. 2018). Darney and Larwin (2018) noted that nontraditional and first-generation students have barriers that include technology that traditional students do not share.

First-generation college students comprise a third of total college-goers nationwide and more than 20% of the over 7 million undergraduates at 4-year institutions (Skomsvold, 2015). First-generation students are students who are the first in their family to attend a college, whether it is a 2-year or 4-year college or university. These students must cope with unique challenges related to their parents' limited postsecondary knowledge: for example, these students may not know that resources such as instructor office hours are available and can help them be successful, while continuing-generation peers come to college with a more innate sense of how to take advantage of existing supports (Pappano, 2015). On the other hand, international students come to college with their own unique issues.

Andrade (2006) and Jibeen and Khan (2015) found a rise in the number of international students in English-speaking countries such as the United States of America, the United Kingdom, Australia, and Canada to name a few. International students have become an important part of the distance learning campaign for colleges, but others have come to U.S. universities to participate in face-to-face courses. Between the years of 2000 and 2022, the number of international students in U.S. universities and colleges has increased to over one million (National Center for Education Statistics, 2021). Additionally, high school students are making their way to the community college through dual enrollment.

Dual enrollment students are entering college to obtain a 2-year degree while completing their high school diploma. Advocates of dual enrollment believe that the program is better for high school students in the long run (Hoffman & Lance, 2018). These students have a reduced time in completing degrees, earn higher grades, save money, and have increasing access to college programs (Allen & Dadgar, 2012). They are better prepared for the transition into college and more likely to receive a degree (Shaw, 2019). Chen (2017) noted that dual enrollment students show more signs of college readiness than their counterparts who graduated and then enrolld in a community college.

Students are moving from high school into community colleges at an increasing rate. Sixty-seven percent of high school students continue their education in college and out of the total number of college freshmen, 34% attend community college (Bureau of Labor Statistics, 2021). These students are made up of students who are college ready and students who have to attend developmental courses. Students who are college ready have sub scores in all three subjects (reading, English, and mathematics) and make up less than 22% of the community college student population (Bureau of Labor Statistics, 2021). The other part of the community college students' population is made up of developmental students.

Woods et al. (2017) noted that over 60% of all students (traditional and nontraditional) who enter community colleges must take at least one developmental course. Barhoum (2017) believes the rate is more like 80% of students in higher education have to take at least one developmental course. Of these students, 40% are traditional undergraduate college students who have to take at least one developmental course (Whiton et al. 2018). Bailey et al. (2009) discovered that 44% of developmental students took between one and three developmental courses, while 14% took more than three such courses. In addition, not all students who needed developmental courses took them. Many who took the developmental courses still struggled in their college-level courses and were less likely to graduate.

Bettinger's (2013) research indicated it was necessary for developmental students to receive help with course work, and with every aspect of college life. Quarles and Davis (2017) discussed the notion that remedial developmental courses have become a barrier to success for higher education students. Graduation rates and retention were higher for students who were academically prepared, received grants and scholarships, and were in smaller classes with established instructor-student interaction (Millea et al., 2018). Researchers often overlook other areas of college life due to their focus on academic course work. Students (traditional and nontraditional) need help not only with the course work but also with transitioning to college and social aspects of the new educational environment.

Developmental courses have been a barrier to community college students' success in higher education. Hatch et al. (2018) found that one course is not sufficient in aiding developmental students with completing community college. Nonetheless, half of the student population enrolled in developmental courses never complete them or the students never have a chance to take credit courses (college-level courses) before disengaging from the community college (Hatch et al., 2018). Barhoum (2016) believes there is a real concern for the "least ready" developmental students. Community colleges need to reform how they deal with developmental students and the way of teaching this "least ready" developmental student. There needs to be a new approach to handling developmental courses (Perun, 2015).

Bailey (2009) found that community colleges that had three or more levels of developmental courses had a lower percentage of students who completed with an associate degree. Moreover, the developmental pipeline has developmental students who never emerge to a college-level course (Hagedorn & Kuznetsove, 2016). The timeline of taking three or more levels of developmental courses discourages students who were already struggling to complete college courses. Because of the low rate of success for developmental students, community colleges have begun to look at the developmental pipeline for underprepared or unprepared developmental students. Placement test remains the primary means for placement of community college students into the math and English developmental track (Bahr et al., 2019). Students are entering community colleges have a license to enroll millions of underprepared or unprepared students who are unlikely to succeed (Pratt, 2017).

Not only do community colleges have to deal with underprepared and unprepared developmental students but community colleges have to do so with less federal government funding. Generally, funding decreases to community college during times of the nation's financial instability. There is an increase in community college students' enrollment and a decrease in aid from the community college's state government funding department. With reduced aid from the government, community colleges have to increase their graduation rate with less funding (Felix & Pope, 2010).

Government pressures community colleges into raising their graduation rate with lower economic resources (Hutto, 2017). Zeidenberg (2008) stated that community colleges are funded institutions that now must fulfill the missions of the college (i.e., providing courses in academia, life enrichment, and skill training) with fewer resources. Community colleges face a challenge in keeping with the mission of the college and the requirements set forth by the federal government (Levin et al., 2018).

And during this time of increasing enrollment into community college (2020– 2022), the success rate of these community college students has yet to rise. Community colleges suffer from the same issue as 4-year universities or colleges-how do we increase the rate of graduates. Hagedorn & Kuznetsove, (2016) notes that because community colleges serve a large population of diverse students, community colleges must aim to increase the general success rate (graduation and transfer rates to 4-year universities). Community college stakeholders are looking into raising the graduation rates to match with the increase in students choosing community college as their first step into higher education (Weiss et al., 2015).

Government measures community college success rate by retention and graduation rate (Millea et al., 2018). There is an issue with community college retention and graduation rates especially with developmental students (Tolliver & Miller, 2018 and Millea et al., 2018). One of community colleges' functions is to provide developmental students with the skills needed to complete college-level work and the opportunity to obtain a certificate, a 2-year degree, or the ability to transfer to a 4-year degree (Felix & Pope, 2010).
The federal government has put its focus on graduation rates of universities and colleges. It is the mission of the college that usually has to wave to the federal government new rules and regulations. Community colleges have to adapt or alter their mission and identity (Levin et al., 2018). They must increase community college retention and graduations rates for all students including underprepared and unprepared developmental students

In like manner, President Obama wanted the United States to achieve the highest proportion of college graduates in the world by 2020 (Chen et al., 2017). Although worldwide, higher education in the United States has one of the lowest percentages of graduates (Martin et al., 2014). Looking towards this goal, the federal government assigned the task of getting underprepared and unprepared developmental students to graduate and into their next role after college up to community colleges.

Roksa et al. (2009) looked to improve the rate of success for underprepared and unprepared developmental students in community colleges by exploring the limitations of underprepared and unprepared developmental students in completing a 2-year community college degree. Williams and Siwatu (2017) noted that many states have mandated that community colleges offer developmental courses. The government trusts that community college is the proper place to offer developmental courses for underprepared and unprepared students.

Some states have gone so far to create policy changes that restrict developmental courses only to the community college campus (Williams & Siwatu, 2017). In other words, community colleges have the resources available to help these underprepared or

unprepared developmental students succeed and the best place for these underprepared or unprepared developmental students to be served in the community college. Williams and Siwatu (2017) researched developmental courses given at both 2-year and 4-year colleges and found that 2-year community colleges had better success at instructing the developmental students. For students who are underprepared or unprepared academically for 4-year universities, community colleges have become a practical option. Having an open for all policy, community college becomes a catch-all for students who may be underprepared or unprepared for higher education. Felix and Pope (2010) argued that there is a need for community colleges to meet the needs of developmental students who have secured access to community colleges but who are underprepared or unprepared to engage in college-level work.

One of the issues with the graduation rate for community colleges is that the 80% of community college students' educational goal is to transfer to a 4-year college and earn a bachelor's or master's degree (Horn & Slomsvold, 2011) which causes a large number of students to leave before the end of the first year (Lichtenberger & Dietrich, 2017) and lowers the community colleges graduation rate. Very few community colleges students receive a bachelor's degree and transfer rates to 4-year universities or colleges are low (Jabbar et al., 2017). While some schools have added quality assurance measure to aid with nontraditional students' success in community colleges (Sanders-McDonagh, 2017), of the one third of students who successfully transfer to 4-year universities, only 15% actually complete the degree (Xu & Dadgar, 2018). This percentage is the same for students who go the traditional bachelor's degree route—directly from high school to

college bypassing community college (Strickland, 2018). However, the percentage decreases for the underprepared or unprepared developmental students who transfer to 4-year universities.

The leading reason for community college students not to complete an associate degree or earn a certificate is their poor academic preparation for college (Kolenovic & Linderman, 2013). Additionally, Martinez (2019) notes that more than half of the students who enter community college are unprepared or underprepared and need at least one developmental course. Students are graduating high school but do not have the appropriate skills to pass an entry exam for community colleges. Students' poor academic preparation requires that community colleges aid students who do not have the basic skills needed to complete college-level course work while trying to raise completion rates for the entire community college student population.

Melguizo et al. (2014) reviewed the policies that dealt with the assessment and placement of students in developmental community college courses and suggested changing to a uniform policy. In a uniform policy, students would leave developmental courses prepared for college-level work. Melguizo et al. found that for most community colleges the uniform policies created were accelerated programs. These are shortened sequences of developmental remedial courses used to speed up the underprepared and unprepared developmental student route through the developmental pipeline. Although, research has shown that accelerated programs help underprepared and unprepared students complete developmental courses quickly (Jaggars, 2015), accelerated programs

do not make a difference in the unprepared and underprepared developmental student ability to complete community college (Xu & Dadgar, 2018).

Researchers have also noted that content development is just one of the many factors that hinder success. Perun (2015) discusses students' expectation of what college professors considered college-level work and what colleges expect of them as higher education students. Adding that part of the higher education students' inability to perform college-level work is because the student believes that grading is not the quality of the work but the quantity of the work (Perun, 2015). A thought process that aided high school students who are incoming development community college students in graduating from their high school. The other factors include student support, major choice, instructor-student interaction, and instructor employment status (Ashraf et al., 2018).

This chapter discusses how this researcher gathers information on faculty instructor employment status through combined database searches. While using, functional role theory as the theoretical foundation for this research, the theory discusses the roles people assume and the expectations, others have on the person who assumes the role. Lastly, this chapter discusses the key variables in the research of community college developmental course students and their faculty instructors.

#### **Literature Search Strategy**

To gather materials for this literature review, I accessed the Psychology Databases Combined Search. The keywords used were *faculty instructor employment status*, *community college, two-year colleges, college students, community college, student*  outcome in community college, part-time vs full-time, developmental students in community colleges, developmental courses, college retention, enrollment, and student characteristics. The peer-reviewed articles researched had publication dates between 1993 and 2018, and the foundation and theoretical works had publication dates between 1975–2013.

# **Theoretical Foundation**

Functional role theory concerns the behavior patterns (roles) that people assume in their social life (Biddle, 1986). These roles mark a person's social position and the expectations of behavior that come with assuming that role. Biddle, (1986) noted that functional role theory provides a perspective for studying many social issues. Biddle analogized functional roles with a theater performance. Theater performances have roles that actors assume, and these roles have scripts that seem reasonable for social behavior. Likewise, people who participate in social roles have scripts or expectations for behavior to which all participants adhere (Biddle, 1986).

An assumption in functional role theory is that people play a role as actors in a system and learn how to conduct themselves within the system (Biddle, 1986). Both full-time faculty instructors and part-time faculty instructors perform a vital role in the community college system. Full-time faculty instructor members often take on a greater role in their department than part-time faculty members. Most full-time faculty instructor not only carries a certain teaching load, but also may serve the college community, participate in professional development, or mentor newer faculty instructors.

Xu (2019) recognized that a difference exists in the support mechanisms provided to part-time and full-time faculty instructors. For example, part-time faculty instructors have less of a commitment to a college because of the total number of hours they must spend on campus. Additionally, part-time faculty instructors have to deal with more than one college or campus. The root of functional role theory is that actors behave in ways that are predictable depending on their respective social identity within the situation (Biddle, 1986). Using functional role theory as the basis for this research, I investigated whether the differences in the roles of full-time and part-time employees impact the success of students completing developmental English courses, as measured by course grades. There is also an interconnectedness that involves the students' interaction with faculty instructors and the student's ability to persist through the completion of college.

Additionally, Tinto (1975) created the student retention theory, which describes an interconnectedness of social characteristics and academics in a student's persistence to a college graduation. According to the theory, being a part of a social support system is important for students completing academic work. The world outside of the classroom including financial concerns, familial roles and responsibilities, and social interactions on campus—may aid or hinder students' success. This theory is based on Urie Bronfenbrenner's ecological system, which describes how human development is based on five ecological systems (microsystem, mesosystem, exosystem, macrosystem, and chronosystem). These systems interconnect and change during a person's lifetime.

Faculty instructor members comprise part of the social support system, and having a good experience with faculty instructor members early in their college career

helps to increase students' success in college (Tinto, 2006). Finding faculty instructor members to connect to not only helps them complete their academic work but also helps with connecting to the school and classmates. Students need this interaction to help them want to stay and succeed instead of faltering at the first challenge they face. Students must feel a part of a community early in their college experience in order to successfully complete a 2-year degree. Student retention theory indicates the importance of students' interactions and experiences with faculty instructors in and outside the classroom (Tinto, 1975). Used as the foundation of this study on faculty instructor employment status, faculty instructors' interaction whether with a part-time or full-time instructor is important to student success.

#### Literature Review Related to Key Variables

#### **Community Colleges**

Keniston's (2016) research uses secondary data similarly to the information that was used in the present study. The present and Keniston's research used a quantitative methodology to investigate what variables hinder a students' success in developmental math. Keniston used only a southern location of community colleges for research on multiple factors that would hinder the students' success. This present study population served as a more diverse look at the issue.

#### **Developmental Students in Community College**

Trucker (2014), Fike (2008), and Keniston (2016) defined key variables that were used in the present study *developmental English faculty instructors' employment status, English 101*, and *developmental students*. Trucker (2014) considered the role of

community college in developmental students' success and completion. Correspondingly, Trucker (2014) took into consideration that developmental students need help to complete (finances, tutoring) and that growing with these students as they continue through the community college process is the best way to see success. Conversely, Fike (2008) studied the many factors that can predict the developmental student persistence with community college; as well as whether the community college can retain the developmental community college students.

# Gender

Gender has evolved in the definition in the last couple of decades. Gender is often used to refer to an idea that has become fluid and cannot be separated by sociocultural or even biological components (Galupo et al., 2017). No longer can we take for granted the gender of anyone and little research has been done on this concept of gender (Schudson et al., 2019). However, Lloyd & Galupo (2019) discovered females and males are viewed in social terms of the appearance of the person. There are a variation and not a fixed way in which people categorize the terms (male and female).

American Psychology Association (2019) refers to gender as the attitudes, feelings, and behaviors that a given culture associates with a person's biological sex, it is a social identity. Gender defines what is appropriate for girls and boys, and women and men. Gender differences have been studied widely (Skaalvik & Skallvik, 2004; Ganley & Vasilyeva, 2011; Hyde et al., 1990). In education, where woman has historically moved into teaching as a career choice, the instructor's gender is studied as a variable in the higher education system (Subbaye & Vithal, 2017).

#### **Part-Time Versus Full-Time Faculty Instructors**

The faculty instructor-student interaction process is an important factor because it assists students in understanding the college-level assignments the students need to complete. This faculty instructor-student interaction does not only help the underprepared or unprepared developmental student's performance in developmental courses but also as the higher education student journeys into college-level work (Penny & White, 1998). Hutto (2017) noted a correlation between student retention and faculty instructor-student interaction. Faculty-student interaction inside and outside of the classroom influence the ability for the underprepared or unprepared developmental higher education student to successfully complete the program. Faculty instructor-student interaction not only influences instructional methods and student support but also has an effect on student outcomes such as grades and graduation rates (Ehrenberg & Zhang, 2005; Pannapacker, 2000). Stuart et al. (2014) believed that increase student engagement in the community college community only enhance the success rate for unprepared, underprepared, nontraditional developmental students.

By the same token, Felix and Pope (2010) noted that there is a need for community colleges to start to make the tough decisions about firing apathetic or uncommitted to the mission community college faculty instructors. Active teaching strategies used for traditional students are not useful for nontraditional students (Arjomandi et al., 2018). Nontraditional students need to develop a sense of connectedness and resources that traditional students already have or do not need for success in higher education. A collective social system aided in the nontraditional community college students' ability to graduate (Kearney et al., 2018). Millea et al. (2018) summarize that success for community colleges means investing in programming and delivery.

The mode of delivery makes a difference in success for the underprepared and unprepared developmental students (Bonet & Walters, 2016). Austin and Sorcinelli (2013) explained that there are numerous factors (individual drive, the faculty instructor's engagement and, high expectations) in student success. Bonet and Walters (2016) noted that a high level of faculty instructor-student interaction and lower student absence increase the probability for unprepared and underprepared developmental students completing community college. Perun (2015) researched how the interactions among the content, professor, and students determined if students passed or failed a course. Additionally, noting that when faculties held students to high standards and articulated those thoughts on every assignment, students did not perceive that their grade was on quantity of work but for quality of work. Barhoum (2017) added there needs to be a change in how classes are implemented and what tools are used for underprepared or unprepared developmental students. Edgecombe (2011) discussed how there are certain building blocks to reform developmental education and each building block must be evaluated and redesigned. Likewise, faculty instructor may be ill-equipped to assist them with studying more effectively and efficiently (Dunlosky et al., 2013), often relying on what they believe would be helpful without being familiar with the empirical literature (Gurung, 2011). Employment status and gender of the faculty instructor is one of the many building blocks.

There are numerous differences in part-time and full-time faculty instructors' teaching and interactions with students. Tinto (2006) and Martinez (2019) contended that faculty instructors' interactions with students have become increasingly important and that faculty instructors have a role in meeting community colleges' institutional goals, which include retaining students until graduation. Dickson and Tennant (2018) added that the level of support faculty instructor provide underprepared and unprepared developmental students have a positive effect on their graduation rate. Jaeger & Eagan (2009) indicated that there are teaching method differences both inside and outside of the classroom between part-time and full-time faculty instructors, and Murphy-Nutting (2003) reported that part-time faculty instructors adversely affect their department.

A difference exists in the general quality of education and support of students between part-time and full-time faculty instructors, and that part-time faculty instructors threaten the quality of academic programs in terms of course content, advising, and faculty instructor-student interaction (Haeger, 1998). Schuetz (2008) distinguished that part-time faculty instructors keep reduced office hours, have lower writing expectations of underprepared and unprepared developmental students, and are less technologically well informed than their full-time counterparts. Schuetz (2008) indicated that part-time faculty instructors are less accessible to underprepared and unprepared developmental students and are less current on teaching the subject matter. Additionally, time and availability play a part in whether the faculty instructor uses the resources available to them at the community colleges (Faulk, 2018). In contrast, research on part-time faculty instructors indicates that their access and ability to use their professional development resources effectively is part of the issue with their success (Datray et al., 2014). For example, Lancaster and Lundberg (2019) note there needs to be an increase in quality of the relationship between part-time instruction availability and underprepared or unprepared developmental students. Burns et al. (2015) note that there is an increasing number of part-time faculty instructors teaching in higher education. The cost for community colleges to have part-time faculty instructors teach the same course. The hiring of a part-time instructor is more favorable for community colleges, especially during times of economic challenges and lower federal government aid.

However, the part-time faculty instructor is still responsible to carry out the community colleges mission of helping (traditional and non-traditional) students who either have lower-economic status, who are unprepared or underprepared for community college-level worker students who are returning back to community college for retraining and advancement of their career. Part-time faculty instructors do not have the same access to professional developmental resources that full-time faculty instructors have. Additionally, part-time faculty instructors have no security in their job, are incredibly vulnerable to job loss, and have little intellectual independence in the classroom (Nelson, 1999). Datray et al. (2014) study on part-time faculty instructors noted that one limitation of the research on part-time faculty instructors is that all of the authors were full-time faculty instructors. As full-time faculty instructors, they have a bias towards full-time

faculty instructors' and their role in the college arena being the preferred type of instructor.

Furthermore, research has shown that full-time faculty instructors' members are a significant component in a students' decision to complete a degree (Tinto, 2006). Students (nontraditional and traditional) who experienced higher levels of faculty instructors' validation are more likely to feel a sense of integration in a college (McCormick & Barnett, 2011). As well, students' success (traditional and non-traditional) suffers without a complete classroom experience that includes full-time faculty instructors (Kezar & Maxey, 2012). A full-time teacher is noted as being more committed to the college or university and the student's success.

Conversely, Keniston (2016) indicated that having a part-time instructor for a developmental math course increased the likelihood of underprepared or unprepared developmental students passing the developmental math course. Additionally, the students who had part-time faculty instructors performed especially well in the lower levels of developmental math courses (Keniston. 2016). Quarles and Davis's (2018) research demonstrated that students who completed developmental math courses in part-time faculty instructors' classrooms were more likely to complete college-level course work.

Haglin (2016) discusses community colleges' ability to create learning opportunities for all students by looking at the role of the instructor (part-time instructor versus full-time instructor) in the community college student's ability to perform well in their coursework. Additionally, Tian et al. (2019) research part-time faculty instructors versus tenor (full-time) faculty instructors and their ability to instruct college students. The researchers found that part-time faculty instructors had the greatest impact on short and long-term student academic achievement.

## **Developmental Students Outcome in Community College**

Pierce (2015) and Rosenbaum & Becker (2016) discuss student outcomes in why community colleges fail to meet students' needs. Bettinger et al. (2013) noted that developmental students need bridge programs, developmental courses, and academic support to increase their level of preparation for college-level work. As previously mentioned in Chapter 1, the unpreparedness of students hinders their ability to complete a degree (Tinto, 2006). Additionally, Trucker (2014) discussed developmental courses and students' placement in developmental courses. This research details the community college completion success rates of English 101 students who completed one or more developmental courses. While Keniston (2016) researched only about math developmental courses; this research delved into the English developmental courses that are so valuable to student's success.

#### **Developmental Students Courses**

Trucker (2014) considers a student for a developmental course if the student has an SAT score of 499 or below in critical reading and writing or ACCUPLACER placement test results under 89. Additionally, any sub-100-level course in reading or English that students place into after taking the College Board's ACCUPLACER test is defined as a developmental course. Bettinger et al. (2013) summarized that developmental students need bridge programs, developmental courses, and academic support to increase their level of preparation for college-level work. As mentioned previously, the unpreparedness of students negatively affects their ability to complete a degree. For the purpose of this study, developmental students included any student who successfully completed an English developmental sequence in fall 2013.

## **Summary and Conclusions**

In conclusion, researchers have studied developmental courses in-depth because of their usefulness for community college students to reach college-level readiness. Researchers have conducted studies to determine the success rate of students after completing developmental courses. Fike (2008) noted a need to improve student outcomes in developmental courses. After studying one of the factors that may hinder success (employment status of developmental course faculty instructors), this research could inform educational leaders and the community at large who are determining parttime faculty instructor needs and staff patterns for community colleges. In Chapter 3, I discuss the method and design selected for this study.

#### Chapter 3: Research Method

## Introduction

This research comes at a time when the number of students graduating from high school lacking appropriate preparation for college work is increasing (Keniston. 2016). With an increase in the number of students needing to complete developmental courses, developmental courses at community colleges have become increasingly important. Many factors go into creating a successful community college developmental course. The focus of this study was to investigate whether the employment status and gender of faculty instructors, who teach initial required developmental courses, were factors in the community college students' ability to pass regular introductory English courses.

The literature review included studies in which researchers examined the ability of students to complete a college course after completing a developmental sequence. One factor, faculty instructors' employment, has yet to be studied. The rationale for this study was not to explore whether a simple correlational relationship exists between developmental courses faculty instructors' employment status and ability of student to pass an English 101 (i.e., freshman introductory English) course, the intent was to determine the effect, if any, of developmental course instructors' employment status and gender on the student grades in an English 101 course. This study may assist in understanding faculty characteristics associated with instruction in developmental courses. Consequently, this chapter explored the research design, methodology, data collection, data analysis, and validity for this present study.

#### **Research Design and Rationale**

Quantitative research design and analysis was used in this study. In specific, the non-experimental design used ANCOVA to analyze archival data. The intent was to determine whether statistical differences exist in students' final English 101 course grades when comparing between full-time and part-time, female and male, faculty instructors who taught the prerequisite developmental English courses. I used the 2021 version of the Statistical Package for Social Sciences (SPSS) to analyze the data after data cleaning procedures are completed.

The two independent variables were developmental English faculty instructors' employment status, with two levels—full-time or part-time, and gender—female, male, or other. The dependent variable was developmental student grades in English 101 measured on the traditional 4-point scale (A, B, C, D, and F). Using archival data that also contains the developmental students' placement test scores and their ages, I used these two variables as covariates in a two-way ANCOVA. ANCOVA controls the potential influence of these variables in the analysis results.

Some researchers have used qualitative methods to study components that can interfere with student decisions to complete a degree (Tinto, 2006) and the levels at which students integrate into the community college system (Barnett, 2011). Other researchers have used quantitative methods to study the idea that community college classroom needs full-time faculty instructors to ensure the success of the students (Kezar & Maxey, 2012). This research, as stated previously, involved using quantitative analysis to determine whether faculty instructor employment status and gender affect students' grades in college-level introductory English courses. There were no time or resource constraints with this design choice.

# Methodology

## **Population**

A mid-Atlantic community college was the context for this study. The community college had approximately 60,000 credit and noncredit students per year who attend one of its six campuses. When students arrived at the community college, they took the ACCUPLACER placement test that determined whether they must complete a developmental course sequence. Almost two thirds of incoming community college students were academically underprepared for college and must take a developmental education course sequence designed for them to improve their chances of success in college-level work (Bailey, 2009). This study included students in developmental sequences who completed their sequence in fall 2013. The population consisted of traditional students and nontraditional students. The archival data did not include a variable that distinguishes between traditional and nontraditional students. Traditional students were students who are within 2 years of their high school graduation, just recently graduated. Nontraditional students were students who are returning to school after work or some other reason.

## **Sampling and Sampling Procedures**

The participants in this study were community college students who completed their developmental course sequence and then completed English 101 (freshman introductory English). I used archival data obtained from the cited mid-Atlantic community college and included every student who fits the inclusion criteria. The Office of Planning, Research, and Development of the community college is responsible for data collection. I submitted a request to this office asking for data from its database on students who successfully completed developmental courses in fall 2013. After 4–6 weeks, the college produced a spreadsheet of de-identified data, and at no time was I privy to the faculty instructors' names or any other identifying characteristics of the faculty instructors or students. The data consisted of 140 individual teachers who taught at least one of the almost 300 sections of the English developmental course offered at the college during the data collection period. The sample also contained the 10 to 20 students per class who are registered for the 300 sections, approximately 4000 students. Using G\*Power (Version 3.1) software (2019), a minimum sample size of 400 participants was determined based on a .05 alpha, .25 effect size, .95 power, six comparison groups, and two covariates. The sample size calculation supported that the intended population sample was sufficient for statistical analysis.

## **Data Collection Procedures**

As part of the data acquisition process, I requested information from the selected community college's Office of Planning, Research and Developmental team regarding students who completed Developmental English during fall 2013 and then completed English 101 between winter 2014 and spring 2015. The requested data were provided in an Excel spreadsheet and included the students' English placement scores (covariate), students' age (covariate), students' gender (demographic variable), students' race or ethnicity (demographic variable), students' final grade in English 101 (dependent

variable), employment status of the developmental English faculty instructors (independent variable), faculty instructors' race or ethnicity (demographic variable) and instructor's gender (demographic variable). The data did not include students who did not complete developmental courses.

Student age was placed on an interval scale with a range from 14 to 80, as reported by the community colleges yearly report. Student gender was placed on a nominal scale (male, female, or other). Additionally, student ethnicity was placed on a nominal scale. The two categories included Minority (more than one ethnicity, Asian, Hispanic, Latino, African-American, or Black) or Non-Minority (European descent). The population and sample consisted of traditional students (students who graduated from high school in the previous 1 or 2 years) and nontraditional students (students attending college after being in the workforce or taking a break after high school).

Trucker (2014) defined English 101 as the freshman introductory English course. The community college noted that English 101 provides instruction in a writing process that enables students to develop a topic by organizing ideas, writing a draft, and revising the draft. Students must pass a placement test in order to enroll in English 101 or complete a developmental sequence prior to enrolling and completing English 101. In this course, students receive a grade on a 4.0 scale.

English faculty instructors' employment status levels were part-time (teaching less than 10.5 credits per fall and spring semester) and full-time (teaching at least 15 credits per fall and spring semester). On the data spreadsheet, full-time faculty instructors appeared as FT, and part-time faculty instructors were labeled ADJ.

## **Data Analysis Plan**

This present study used a nonexperimental, casual-comparative design to examine the effect of faculty instructor employment status and gender on the English 101 grades among students who previously completed developmental courses. Schenker and Rumrill (2004) noted that this type of research design is used when the researcher collects or has pre-existing data that cannot be experimentally manipulated. Results demonstrated whether the comparison groups differ given potential main effects or interaction effects.

Prior to the inferential analysis, data cleaning was conducted to ensure data were not missing and confirm all student subjects took a developmental course and have a grade for English 101. Student records that were missing data were eliminated from the analysis. Likewise, the data were examined to make certain all required instructor information was included. The instructor records that were missing data were also eliminated from the analysis.

ANCOVA was the appropriate analysis strategy to test the following research question and associated null hypothesis:

RQ: Is there a significant difference in English 101 course grades among community college students who previously completed developmental English courses, depending on the gender and employment status of faculty instructors who taught the prerequisite developmental English courses, when controlling for student placement test scores and ages?

 $H_01$ : There is no significant difference in English 101 course grades among community college students who previously completed developmental English courses,

depending on the gender of faculty instructors who taught prerequisite developmental English courses, when controlling for student placement test scores and ages.

 $H_{a}1$ : There is a significant difference in English 101 course grades among community college students who previously completed developmental English courses, depending on the gender of faculty instructors who taught prerequisite developmental English courses, when controlling for student placement test scores and ages.

 $H_02$ : There is no significant difference in English 101 course grades among community college students who previously completed developmental English courses, depending on the employment status of faculty instructors who taught prerequisite developmental English courses, when controlling for student placement test scores and ages.

 $H_a$ 2: There is a significant difference in English 101 course grades among community college students who previously completed developmental English courses, depending on the employment status of faculty instructors who taught prerequisite developmental English courses, when controlling for student placement test scores and ages.

 $H_0$ 3: There is no significant interaction effect between instructor employment and gender on English 101 course grades among community college students who previously completed developmental English courses when controlling for student placement test scores and ages.

 $H_a$ 3: There is a significant interaction effect between instructor employment and gender on English 101 course grades among community college students who previously

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completed developmental English courses when controlling for student placement test scores and ages.

Using the archival data spreadsheet, I imported the data into SPSS to (a) test the necessary assumptions for using ANCOVA, (b) compute descriptive statistics, and (c) perform a two-way ANCOVA, assuming no assumptions have been violated. If any violations were made, then they were noted. The Alpha level used for testing the null hypothesis was p = .05.

The underlying assumptions associated with ANCOVA included that for each independent variable there is a linear relationship between the dependent variable and the covariate (Creswell, 2012). I tested the hypothesis using SPSS to find whether there was a linear relationship between the variables. There was an assumption of homogeneity of regression slopes, meaning the relationships are parallel. The covariant and independent variable were independent of the treatment effects. They were uncorrelated. To test this assumption, I analyzed the data looking at the estimate of effect size and a homogeneity test looking for a non-statistically significant result. There was also an assumption the results are normally distributed, meaning most of the students are concentrated around the average score. Using SPSS, I tested this assumption by running a descriptive statistic test, test of normality, looking for outliers in the data. The Shapiro-Wilk results determined whether there were non-statistically significant results.

After testing the model assumptions, the first step in the formal analysis involved computing appropriate descriptive statistics for all demographic and research variables (Creswell, 2012). Means and standard deviations were computed for interval-level

variables and frequencies and percentages for nominal variables. The SPSS "Descriptive Statistics" analysis technique was used to calculate all descriptive statistics for collected demographic variables. Descriptive statistics (such as *t* test, cross-tabulations, and means) for the research variables and covariates were calculated within the ANCOVA analysis.

The dependent variable in the ANCOVA analysis was the aggregated mean student grade received in all qualifying English 101 courses. The independent variables, as stated previously, were instructor employment status and gender. The General Linear Model, Univariate, Fixed Factors, with Covariates included among the SPSS analysis techniques were used. Options selected within the analysis technique were "Descriptive statistics," "Estimates of effect size," "Residual plot" and "Homogeneity tests." Furthermore, assuming main effects (that the independent variable has an effect on the dependent variable) occurred for the independent variable instructor gender (three options), the post hoc option selected was "Tukey." Tukey lets a researcher know if there are differences between groups. I chose Tukey because it allowed me to evaluate the collected data.

Placement scores were used as one of the two covariates included in the analysis because they were an important background factor that can potentially influence the results. As previously discussed in Chapter 2, students with lower placement courses have a harder time completing a developmental sequence of courses and eventually English 101. Moreover, when students must start in a lower placement course, it often takes more time for them to begin credit-level work. Students' age is also an important covariate because age could be a factor influencing or perhaps hindering a student's success. Students at different age levels have different life issues that may complicate completing a 2-year community college degree.

## **Threats to Validity**

Multiple threats to research validity are possible within social science research. To address these possible challenges, research validity can be broken down into two separate but related dimensions: internal validity and external validity.

Internal validity measures the results of the research reliability (Creswell, 2012). The lower your internal validity, the more confounding variables the researcher included in their research, and the researcher has failed to control the variables in the experiment. The higher the internal validity, the stronger the research method used in the research. There are four threats to internal validity in this study. The first is a threat to the variability in grading practices among the faculty instructors included in the study. Each teacher had his or her own system for grading students in their ability to complete the developmental courses. This difference could lead to a situation in which a student who earns a D in one developmental course could have earned a C in another developmental course taught by a different instructor. Another threat to validity is the differential selection (Creswell, 2012). Students select and register for the developmental course that they would like to take. This research did not have a method to randomly place students into developmental courses because I used archival data. The last threat is experimental mortality (Creswell, 2012). Students leave colleges at a high rate after the first year (Keniston, 2016). A number of students who finished the prerequisite developmental course may not have returned to take the English 101 course. Because of this factor, some students naturally depart from the experiment. To control for threats to construct and statistical conclusion validity, I used developmental students' placement test scores in an attempt to control for confounding variables.

External validity, on the other hand, determines if the results of this study can be applied to other settings or generalized to another setting. Factors that may threaten the external validity of this study include the exclusion of some of the population. Students who attend classes in high school are excluded from the present-day study. Also, there may be uneven groups in the study which would cause the study to have a lower level of external validity. The interaction effects of selection are important to the research, and I considered this threat when analyzing the archival data provided by the Planning, Research, and Evaluation team. Another threat to external validity is multiple-treatment interference (Creswell, 2012). There are three developmental courses available for a student. One sequence of courses may be more beneficial for students than another developmental sequence of courses. By relying on students' who passed the developmental sequence, I can be ascertained that the developmental sequence is not a threat to the analysis.

## **Ethical Procedures**

I completed first Walden's Internal Review Board paperwork and once given a letter to precede, I completed the necessary paperwork required by the mid-Atlantic community college to obtain and use its archival data for this research. An agreement between the researcher and the community college gave the researcher access to a spreadsheet with the appropriate data. I did not have any direct contact with the participants (students or faculty instructors). All data remained confidential and remained on the community college network or my personal network. I did not move the data to other networks. I used the data only for the purposes of this research. I am an employee at the community college, but I do not teach any of the courses selected in this study.

## **Summary**

This research used a quantitative design to determine if the employment status of developmental faculty instructors influences the student's English 101 grade. Quantitative design was used for this research. This study involved examining data collected by the community college to determine the significance of the faculty instructors' employment status on students successfully completing introductory English. In the chapter that follows, I present the findings of the study.

## Chapter 4: Results

#### Introduction

The purpose of this study was to determine whether employment status and gender differences among developmental English faculty instructors had an effect on subsequent grades in English 101 among community college students. Archival data for 2,364 students were used. The primary research question and corresponding hypotheses for this study were as follows:

RQ: Is there a significant difference in English 101 course grades among community college students who previously completed developmental English courses, depending on the gender and employment status of faculty instructors who taught the prerequisite developmental English courses, when controlling for student placement test scores and ages?

 $H_01$ : There is no significant difference in English 101 course grades among community college students who previously completed developmental English courses, depending on the gender of faculty instructors who taught prerequisite developmental English courses, when controlling for student placement test scores and ages.

 $H_a$ 1: There is a significant difference in English 101 course grades among community college students who previously completed developmental English courses, depending on the gender of faculty instructors who taught prerequisite developmental English courses, when controlling for student placement test scores and ages.

 $H_02$ : There is no significant difference in English 101 course grades among community college students who previously completed developmental English courses,

depending on the employment status of faculty instructors who taught prerequisite developmental English courses, when controlling for student placement test scores and ages.

 $H_a$ 2: There is a significant difference in English 101 course grades among community college students who previously completed developmental English courses, depending on the employment status of faculty instructors who taught prerequisite developmental English courses, when controlling for student placement test scores and ages.

 $H_0$ 3: There is no significant interaction effect between instructor employment and gender on English 101 course grades among community college students who previously completed developmental English courses when controlling for student placement test scores and ages.

 $H_a$ 3: There is a significant interaction effect between instructor employment and gender on English 101 course grades among community college students who previously completed developmental English courses when controlling for student placement test scores and ages.

Table 1 displays the frequency counts for the study variables. To answer the research question, Table 2 displays the relevant two-way ANCOVA model. As additional findings, Table 3 displays the Pearson and Spearman correlations for selected variables with the student's English 101 course grade.

#### **Data Collection**

As part of the data acquisition process, I requested information from the selected community college's Office of Planning, Research and Developmental team regarding students who completed Developmental English during fall 2013 and then completed English 101 between winter 2014 and spring 2015. The requested data were provided in an Excel spreadsheet and included the students' English placement scores (covariate), students' age (covariate), students' gender (demographic variable), students' race or ethnicity (demographic variable), students' final grade in English 101 (dependent variable), employment status of the developmental English faculty instructors (independent variable), faculty instructors' race or ethnicity (demographic variable) and instructor's gender (demographic variable). Data were not included for students who did not complete developmental courses. The data were cleaned by excluding students who took English 101 multiple times.

#### **Descriptive Statistics**

Table 1 displays the frequency counts for the study variables. Using the traditional grade point average (GPA) system (i.e., F = 0 points, D = 1, C = 2, B = 3, and A = 4), the mean GPA for the English 101 course grade was 2.01 (SD = 1.39). Inspection of the GPA scores (the study's dependent variable) found the score to be nonsymmetrical in that almost twice as many students had a letter grade of F (25.7%) than had a letter grade of A (14.7%) and six times as many students had a letter grade of B (27.4%) than had a letter grade of D (4.5%). Only 15.7% of the sample had college-ready English placement test scores. Students' ages in the sample range from 13 to 16 years old (1.0%)

to 40 to 65 years old (5.2%) with an average age of 21.87 (SD = 7.61). There were more than twice as many female instructors (69.8%) than male instructors (30.2%). There were roughly equal numbers of part-time instructors (51.4%) and full-time instructors (48.6%). A four-category variable was created based on the inspection of the interaction between the instructor's gender and their employment status. No unusual pattern of responses was noted (see Table 1).

# Table 1

Variable	Category	п	%
English 101 course grade <sup>a</sup>			
	F - 0 points	608	25.7
	D - 1 point	106	4.5
	C - 2 points	655	27.7
	B - 3 points	647	27.4
	A - 4 points	348	14.7
English testing level			
	Developmental (Level 0)	345	14.6
	Developmental (Level 1)	1,648	69.7
	College Ready (Level 2)	349	14.8
	College Ready (Level 3)	22	0.9
Student's age category <sup>b</sup>			
	13 to 16 years	24	1.0
	17 or 18 years	1,040	44.0
	19 or 20 years	554	23.4
	21 to 24 years	294	12.4
	25 to 29 years	185	7.8
	30 to 39 years	145	6.1
	40 to 65 years	122	5.2
Instructor gender			
	Female	1,651	69.8
	Male	713	30.2
Instructor status			
	Part-time	1,215	51.4
	Full-time	1,149	48.6
Gender / status grouping			
	Part time-female	825	34.9
	Full time-female	826	34.9
	Part time-male	390	16.5
	Full time-male	323	13.7

Frequency Counts for Selected Variables

*Note*. *N* = 2,364.

<sup>a</sup> Grade: M = 2.01, SD = 1.39. <sup>b</sup> Age: M = 21.87, SD = 7.61.

## **Data Analysis Results**

I analyzed the data collected from the study participants using 2021 SPSS software version 21. To answer the research questions, a two-way ANOVA statistical procedure was used for hypothesis testing.

# **Test of Assumption**

According to the Laerd statistics website (Laerd, 2021), there are 10 statistical assumptions that need to be met for a two-way ANCOVA model:

- 1. Continuous dependent variable
- 2. Two categorical independent variables
- 3. Continuous covariates
- 4. Independence of observations
- 5. Linearity between the dependent variable and the covariate in each cell
- 6. Homogeneity of regression slopes
- 7. Homoscedasticity
- 8. Homogeneity of variance
- 9. No significant unusual points in any combinations of groups within the two independent variables.
- 10. Normality

Assumptions 1 (continuous dependent variable), 2 (two categorical independent variables), 3 (continuous covariates), and 4 (independence of observations) were met based on the design of the study. Assumption 5 (linearity between the dependent variable and covariate in each cell) is typically tested by showing scatterplots between each

covariate with the dependent variable. However, the dependent variable (English 101 course grade) had only five categories, and the covariate English testing level had only four levels. Given that there were only 20 possible pairs of observations (five letter grades with four English testing levels) resulting scatterplots were essentially meaningless because the classic "cigar shape" of the scatterplot cannot be derived from only five data points. Therefore, this assumption could not be tested with any degree of precision. Assumption 6 (homogeneity of regression slopes) found nonsignificant interaction effects for each covariate (both student placement test score and student age) and the variable created which was the combination of four category variable created by each combination of instructor gender and employment status. This provided support for this assumption. Assumption 7 (homoscedasticity) found an even spread of pairs of data points within each combination of groups for the two independent variables. Specifically, a grouped scatterplot in SPSS Statistics of the studentized residuals, against the predicted values, was created for each combination of groups of the two independent variables. Assumption 8 (homogeneity of variance) found the Levene's test to be nonsignificant, which met that assumption. Assumption 9 (no unusual points) found no unusual points based on the studentized residuals (no values greater than plus or minus three standard deviations), Cook's distance statistics (all values less than 1.), and the uncentered leverage values (all less than 0.2). Assumption 10 (normality) found the dependent variable to be not normally distributed (see Table 1), which violated that assumption. Taken together, along with the ANCOVA model being robust to violations to

assumptions in large samples (N = 2,364; Tabachnick & Fidell, 2007), the assumptions for the two-way ANCOVA were adequately met.

# **Results of ANCOVA**

The research question for this study was, is there a significant difference in English 101 course grades among community college students who previously completed developmental English courses, depending on the gender and employment status of faculty instructors who taught the prerequisite developmental English courses, when controlling for student placement test scores and ages? To answer this question, Table 2 displays the two-way ANCOVA model for the student's English 101 course grade based on the gender and employment status of the instructor, controlling for the student's age and placement test score. The overall model was statistically significant, *F*(5,2358) = 2.66, *p* = .02, but accounted for less than 1% of the variance ( $\eta^2$  = .006) of the student's English 101 course grade. The significant difference was due to instructor gender alone. None of the other variables in the model were significantly different, including interaction. Neither of the covariates, age, *F*(1, 2358) = 2.50, *p* = .11, nor placement test, *F*(1, 2358) = 3.47, *p* = .06, was significant (see Table 2).

# Table 2

*Two-Way ANCOVA for English 101 Course Grade Based on Gender and Employment Status of Instructor Controlling for Age and Placement Test Score* 

Source of variance	22	df	MS	F	п	Partial n <sup>2</sup>
	25.70		<b>5</b> 1 4	2.66	<u>P</u>	
Full model	25.70	5	5.14	2.66	.02	.006
Student's age	4.83	1	4.83	2.50	.11	.001
Placement test	6.70	1	6.70	3.47	.06	.001
Instructor gender <sup>a</sup>	11.90	1	11.90	6.17	.01	.003
Instructor status <sup>b</sup>	0.78	1	0.78	0.41	.52	.000
Interaction	0.33	1	0.33	0.17	.68	.000
Error	4,551.12	2,358	1.93			
Full model	4,576.81	2,363				
N . N 0264						

*Note*. *N* = 2,364.

<sup>a</sup> Gender: 1 = Female (M = 2.06); 2 = Male (M = 1.90).

<sup>b</sup> Status: 1 = *Part-time*; 2 = *Full-time*.

For null hypothesis 1 (instructor gender), a significant main effect was found, F(1, 2358) = 6.17, p = .01,  $\eta^2 = .003$ . Students having a female instructor (M = 2.06) had a higher mean GPA than did their counterparts who had a male instructor (M = 1.90). This combination of findings provided support to reject null hypothesis 1 (see Table 2).

For null hypothesis 2 (instructor employment status), a non-significant main effect was found, F(1, 2358) = 0.41, p = .52,  $\eta^2 = .000$ . This combination of findings provided support to retain null hypothesis 2 (see Table 2) and set aside the alternate hypothesis 2.

For null hypothesis 3 (interaction between instructor employment status and gender), a non-significant interaction effect was found, F(1, 2358) = 0.17, p = .68,  $\eta^2 = .000$ . This combination of findings provided support to retain null hypothesis 3 (see Table 2) and set aside the alternate hypothesis 3.
#### Summary

In summary, this study used archival data for 2,364 students to determine whether employment status and gender differences among developmental English faculty instructors had an effect on subsequent grades in English 101 among community college students. Hypothesis 1 ( $H_0$ 1: There is no significant difference in English 101 course grades among community college students who previously completed developmental English courses, depending on the gender of faculty instructors who taught prerequisite developmental English courses, when controlling for student placement test scores and ages) was supported with students who had female instructors receiving higher mean course grades (see Table 2). Hypothesis 2 ( $H_0$ 2: There is no significant difference in English 101 course grades among community college students who previously completed developmental English courses, depending on the employment status of faculty instructors who taught prerequisite developmental English courses, when controlling for student placement test scores and ages) was not supported (see Table 2). Hypothesis 3  $(H_03)$ : There is no significant interaction effect between instructor employment and gender on English 101 course grades among community college students who previously completed developmental English courses when controlling for student placement test scores and ages) was also not supported (see Table 2). In the final chapter, these findings were compared to the literature, conclusions and implications were drawn, and a series of recommendations were suggested.

Chapter 5: Discussion, Conclusions, and Recommendations

#### Introduction

In this chapter, I compare the results from this study with previous literature, extract conclusions and implications, and make recommendations for future studies. This quantitative research examined the effect of developmental instructors' employment status (part-time employment vs. full-time employment) on developmental students' success (passing English 101 credit course). Keniston (2016) indicated that having a parttime instructor for a developmental math course increases the likelihood that developmental students pass the college level course. In reviewing the literature, I found few links between gender, instructors' status, and developmental reading/English student success. I addressed the impact this research has on the role that the instructor employment status and gender play in the success of the developmental students.

In this study, I sought to investigate the following research question: Is there a significant difference in English 101 course grades among community college students who previously completed developmental English courses, depending on the gender and employment status of faculty instructors who taught the prerequisite developmental English courses, when controlling for student placement test scores and ages?

Archival data from 2,364 students were used to determine whether employment status and gender differences among developmental English faculty instructors had an effect on subsequent grades in English 101 among community college students. This research found that there is not a significant interaction effect between instructor employment and gender on English 101 course grades among community college students who previously completed developmental English courses when controlling for student placement test scores and ages.

# **Interpretation of the Findings**

In this section, I summarize the results according to the research question. I then discuss how the results connect to the previous literature and to the theoretical framework for this research.

Given the findings of the study, a significant main effect was found which provided support to reject null hypothesis 1 (instructor gender). For null hypothesis 2 (instructor employment stats), a nonsignificant main effect was found, which provided support to retain the null hypothesis and set aside the alternate hypothesis 2. For null hypothesis 3 (interaction between instructor employment status and gender), a nonsignificant interaction effect was found, which provided support to retain null hypothesis 3 and set aside the alternate hypothesis 3.

This research on the comparisons of instructors' employment status and gender differs from the Keniston (2016) study. This research found significant differences with students' success when using the variables of gender. Unlike previous research, this research did not find the difference between the instructor's employment status (part-time or full-time) but found a difference in the instructor's gender (male and female).

The findings of this research align with functional role theory. Function role theory concerns the behavior patterns (roles) that people assume (Parsons & Shils, 1951). Both part-time and full-time instructors assume roles while teaching. The full-time instructor role is not only to instruct students but also professional development, mentoring new faculty members, and college service. The instructor's role in the classroom is to educate the students; however, their role has expanded to social worker, mentor, and support system. These areas outside of teaching take away from the time and effort full-time instructors must put into teaching three to six sections a semester. The role of the part-time instructor is to take the pivotal role of teaching courses that the college does not have a full-time instructor to teach. Part-time instructors are called on during times when colleges either cannot afford to hire a full-time instructor or have courses that full-time instructors cannot fit into their schedule. The realignment of these roles aid in the success of the developmental students. Putting developmental students first ensures more success with the community college setting. This interconnectedness involves participation from the students and the instructors, whether full-time or part-time.

Moreover, the student retention theory describes this interconnectedness as part of the reason students persist to a college graduation (Tinton, 1975). The student-teacher role is important to the success of the community college students.

# **Limitations of the Study**

There are three limitations in this research. The first limitation is that the data included students from only the Northeastern coast of the United States of America and only included inner-city community colleges. In spite of this, the results from this study can be used to inform future studies on student success in community colleges.

Secondly, using English 101 as the definition of success is a limitation. This research could have expanded into how many credits the students complete; if the

students graduated with a degree or certificate; or whether students successfully transferred into 4-year colleges. In the face of this limitation, this research can be used to further investigate the plight of the developmental students.

Thirdly, in this research, I did not investigate whether students coming from diverse backgrounds perform differently in development English courses. This is an important piece to the puzzle on why students underperform in college level course. This research did not take into account the different cultures or ethnicities of the students and whether those difference played any role in their ability to complete college level courses.

# **Recommendations**

Given what I found in this study and what the literature says, it appears that employment status of the instructor makes a difference in the quality of education that a development student receives in math developmental courses; however, an instructor's gender may make a difference in the success of developmental student in English courses. However, we are lacking knowledge in some areas such as quality of facultyinstructor interaction; student's life-school balance; student's motivation and persistence; and faculty training for teaching developmental students. Therefore, future research should address the following questions.

Firstly, does student and faculty interaction in developmental courses make a significant difference in how well a developmental student performs in future college level courses? Following the framework of function social theory, the role of the part-time and full-time instructors' interaction with the student is important to the role of the student's success. Future research should determine some of the key qualities of creating

these important instructor–student interactions. Whether this includes more office hours or more class time, for example, is yet to be determined. Future researchers could examine what factors go into creating a quality student and faculty interaction.

Secondly, future research should focus on students' life-school balance. Students have many outside forces that in part determine whether students can focus on their coursework—especially community college students who sometimes have part-time or full-time employment and children and families to care for at their homes. Community college is a unique experience because students are mostly nontraditional students. Nontraditional students have a potential to have many outside forces that interfere with not only the completion of a degree but also the completion of a course. In addition, future researchers can use a qualitative method to bring to light the different reasons why developmental students do not fare well in college level courses. Using interviews or surveys may lead to a more descriptive explanation for the issues that developmental students have with developmental and college level courses.

Thirdly, it is unclear whether students' motivation and persistence in developmental courses make a significant difference in how well a developmental student performs in future college level courses. Future studies could easily research how many of the developmental studies complete a certificate or a degree. A researcher could analyze why students continue with education or why they discontinue with their students—that is, what makes one student persistent while another student decides to quit. Studying how many credits a developmental student completes while in a community college and whether students who transfer complete a 4-year degree would be a valid topic of research.

Lastly, researchers should explore whether faculty level of training for teaching developmental courses make a significant difference in how well a developmental students perform in future college level courses. Full-time and part-time instructors do not always get the same level of training for developmental and credit level classes. Part-time instructors may or may not receive the mentoring needed for the population they must teach. Some part-time instructors are hired at the last moment and are thrown into classrooms with students' part-time instructors are not trained to teach. Additionally, do community college train developmental full-time to teach this special population of developmental students? A researcher could look at the training that instructors receive and see if there is quality education happening. These developmental students come into the classroom on different levels of comprehension of reading and English skills. Providing quality training for the part-time and full-time instructors aid with student success.

In the future, there are gaps that can be controlled with duplicating this research. Because many colleges have moved to online instruction during the pandemic of 2020, using this online student population could spread the generalization of this study to more than just the population of the Northeastern United States. When looking at education from the national level, researchers can use these data to create national policies that benefit not only the development students, but also the community college and the nation as a whole. In the future studies, the research should include information on whether students took class as a learning community. A learning community is when a student completes a remedial course while taking a college level course. In some cases, the student passes the college level course and fails the developmental course. This concept that a student could pass a credit level course and fail a developmental course puts a different look at the results.

# Implications

This research provides community college administrators and other stakeholders (e.g., policymakers) with insights into future faculty instructor-related studies and actions and thus contribute to potentially increasing the number of developmental students who complete a 2-year community college degree program. The results of this study may influence community colleges and administrators to start to work on creating a better system for developmental learning. Whether this is at the national, state, or community college board level, community colleges need to take a look at how they can aid in producing developmental students who can perform credit college level work. Having an increase in community college student graduation rates may potentially lead to a positive social change for the community college population.

These results are consistent with studies by Perun (2015) and Hagedorn and Kuznetsove (2016), who noted the need to find a new approach to handling developmental courses and the need to increase the success rate of college students. This research adds to the previous research by finding that there are a great number of students who cannot complete gateway college courses (English 101) for most majors. In future research, there should be studies on ways that community colleges can approach developmental students' education.

Additionally, these results align with Felix and Pope's (2010) research indicating the need for community colleges to meet the needs of developmental students who have secured access to community colleges but who are underprepared or unprepared to engage in college-level work. Community colleges are inundated with underprepared and unprepared students. Finding solutions on how to place these students in proper courses for their needs is a step that community colleges continually need help with. Whether one placement test or high school English grades are the proper way to judge if a student is prepared for college level courses is still a judgement that community colleges need to make.

There has been a need for developmental courses for many years. However, there is a need to look at how successful these developmental courses are in preparing the students for credit level course and hopefully completing enough courses for graduation and certification. It is necessary for community college to act in preparing developmental students for the rigor of credit college courses. There is a need to regroup, retrain, and refocus instructors on aiding the developmental students with success and not just with passing a developmental course.

This research is the first step in creating developmental courses that prepare developmental students for success in college level courses, much like Head Start programs give preschool students an adequate start when heading into elementary school. Because this research finds that faculty employment status is indeed a factor in student success, it can be seen as a foreshadow for seeing what other factors hinder or help developmental students with their success. Future researchers can take this information and create other works that could change entire communities. Community colleges are the fore leaders in creating students who can move into the corporate workforce. Considering that this work aids in developmental students graduating from community colleges, it creates a well-prepared workforce for their community.

# Conclusion

The role of the part-time and full-time instructor in the community college setting is integral to the success of the developmental college student. Based on my review of the literature, there have only been a few studies that looked at the gender of the developmental instructor and even fewer that study the employment status of the developmental instructor. This research could potentially provide community college administrators and other stakeholders (e.g., policymakers) with insights into future faculty instructor-related studies and actions and thus contribute to potentially increasing the number of developmental students who complete a 2-year community college degree program.

Through the use of function role theory and student retention theory, we know that instructors (part-time and full-time) have a role that they play in the community college setting. The full-time instructor is the primary source of knowledge for the developmental student. The part-time instructor fills the gaps that are left open mainly because of budget overload of community colleges. It is cheaper to hire a part-time instructor to teach one or two courses than to hire a full-time instructor who you make a salary with benefits. The roles are defined for part-time and full-time instructors. These roles aid in the retention of students not only after they complete developmental courses but also define whether they receive a degree or certification.

In this research, findings did not show a significant difference in success of a developmental student in credit courses when differentiating between part-time and full-time instructors' status. However, the gender of the developmental instructor had a significant, albeit small effect on the success of the developmental student in credit college courses. Data on the success rate of developmental courses in credit courses indicate that many of the developmental students do not pass the gateway credit course (English 101) for many of the major courses in the community college. If students cannot complete the gateway courses for their major, this issue affects their success in college. This makes developmental courses an integral part of developmental students' success. Researching the positive aspects of teaching these developmental courses leads to productive community college students and productive members of society.

#### References

- Allen, D., & Dadgar, M. (2012). Does dual enrollment increase students' success in college? Evidence from a quasi-experimental analysis of dual enrollment in New York City. *New Directions for Higher Education*, 2012(158), 11–19.
   <a href="https://doi.org/10.1002/he.20010">https://doi.org/10.1002/he.20010</a>
- American Psychological Association. (2019). *Publication manual of the American Psychological Association* (6th ed.).
- Andrade, M. (2006). International students in English-speaking universities. Journal of Research in International Education, 5(2), 131-154. https://doi.org/10.1177/1475240906065589
- Arjomandi, A., Seufert, J., O'Brien, M., & Anwar, S. (2018). Active teaching strategies and student engagement: A comparison of traditional and non-traditional business students. *E-Journal of Business Education and Scholarship of Teaching*, 12(2), 120–140.
- Ashraf, R. Godbey, J., Shrikhande, M., & Widman, T. (2018). Student motivation and perseverance: Do they explain college graduation? *Journal of the Scholarship of Teaching & Learning*, 18(3), 87–115. <u>https://doi.org/10.14434/josotl.v18i3.22649</u>
- Attewell, P., Lavin, D., Domina, T., &Levery, T. (2006). New evidence on college remediation. *Journal of Higher Education*, 77(5), 886-924. <u>https://doi.org/10.1353/jhe.2006.0037</u>
- Austin, A., & Sorcinelli, M. (2013). The future of faculty development: Where are we going? *New Directions for Teaching &* Learning, *133*, 85–97.

https://doi.org/10.1002/tl.20048

- Bahr, P., Fagioli, L., Hetts, J., Hayward, C., Willett, T., Lamoree, D., & Baker, R. (2019).
  Improving placement accuracy in California's community colleges using multiple measures of high school achievement. *Community College Review*, 47(2), 178–211. https://doi.org/10.1177/0091552119840705
- Baker, R., Bettinger, E., Jacob, B., & Marinescu, I. (2018). The effect of labor market information on community college students' major choice. *Economics of Education Review*, 65, 18–30. <u>https://doi.org/10.1016/j.econedurev.2018.05.005</u>
- Bailey, T. (2009). Challenge and opportunity: Rethinking the role and function of developmental education in community college. *New Directions for Community College*, 2009(145), 11–30. <u>https://doi.org/10.1002/cc.352</u>
- Bailey, T., Calcagno, J. C, Jenkins, D., Kienzl, G., & Leinbach, T. (2005). The effects of institutional factors on the success of community college students (ED484345).
   ERIC. <u>https://files.eric.ed.gov/fulltext/ED484345.pdf</u>
- Bailey, T., Jeong, D., & Cho, S. (2010). Referral, enrollment, and completion in developmental education sequences in community colleges. *Economics of Education Review*, 29(2), 255–270.

https://doi.org/10.1016/j.econedurev.2009.09.002

Barhoum, S. (2017). Community college developmental writing programs most promising practices: What the research tells educators. *Community College Journal of Research and Practice*, 41(12), 791–808.
https://doi.org/10.1080/10668926.2016.1231092

- Barhoum, S. (2018). Increasing Student Success: Structural Recommendations for Community Colleges. *Journal of Developmental Education*, 41(3), 18–25.
- Basow, S., Codos, S., & Martin, J. (2013). The Effects of Professors' Race and Gender on Student Evaluations and Performance. *College Student Journal*, 47(2), 352– 363.
- Belfield, C., & Crosta, P. (2012). Predicting Success in College: The Importance of Placement Tests and High School Transcripts (ED529827). ERIC. https://files.eric.ed.gov/fulltext/ED529827.pdf
- Bettinger, E., Boatman, A., & Long, B. (2013). Student Supports: Developmental Education and Other Academic Programs. *Future of Children*, 23(1), 93–115. <u>https://doi.org/10.1353/foc.2013.0003</u>
- Bettinger, E., & Long, B. (2010). Does Cheaper Mean Better? The Impact of Using adjunct Instructors on Student Outcomes. *The Review of Economics and Statistics*, 92(3), 598–613. <u>https://doi.org/10.1162/rest\_a\_00014</u>
- Biddle, B. (1986). Recent Developments in Role Theory. *Annual Review of Sociology* 12(1), 67–92. <u>https://doi.org/10.1146/annurev.so.12.080186.000435</u>
- Boerner, H. (2015). On Their Terms: In the Drive for Accountability, Community College Leaders Define Their Own Measures of Success. *Community College Journal*, 85(4), 18–20.
- Bonet, G., & Walters, B. (2016). High Impact Practices: Student Engagement and Retention. *College Student Journal*, *50*(2), 224.

Bremer, C., Center, B., Opsal, C., Medhanie, A., Jang, Y., & Geise, A. (2013). Outcome

Trajectories of Developmental Students in Community Colleges. *Community College Review*, *41*(2), 154–175. https://doi.org/10.1177/0091552113484963

- Broton, K. (2019). Rethinking the Cooling out Hypothesis for the 21st Century: The Impact of Financial Aid on Students' Educational Goals. *Community College Review*, 47(1), 79–104. <u>https://doi.org/10.1177/0091552118820449</u>
- Burns, D., Smith, Y., & Starcher, K. (2015). Adjuncts and Mission: Maintaining
   Distinctive in an Era of Part-Time Faculty. *Christian Business Academy Review* (*CBAR*), 63.

Bureau of Labor Statistics. (2021, March 3). Student information summary.

- Caliskan, M. (2019). The Examination of Gender Differences in Affective Entry Characteristics Towards Mathematics. *International Online Journal of Educational Sciences*, 11(5), 200–211. <u>https://doi.org/10.15345/iojes.2019.05.014</u>
- Carruthers, C., & Sanford, T. (2018). Way Station or Launching Pad? Unpacking the Returns to Adult Technical Education. *Journal of Public Economics*, 165, 146– 159. https://doi.org/10.1016/j.jpubeco.2018.07.001
- Chen, Y., Chen, Y., & Oztekin, A. (2017). A Hybrid Data Envelopment Analysis
   Approach to Analyze College Graduation Rate at Higher Education Institutions.
   *INFOR: Information Systems and Operational Research*, 55(3), 188–210.
   <a href="https://doi.org/10.1080/03155986.2016.1262584">https://doi.org/10.1080/03155986.2016.1262584</a>
- Childs, S., Finnie, R., & Martinello, F. (2017). Postsecondary Student Persistence and Pathways: Evidence from the YITS-A in Canada. *Research in Higher Education*, 58(3), 270.

- Clotfelter, C., Ladd, H., Muschkin, C., & Vigdor, J. (2013). Success in Community College: Do Institutions Differ? *Research in Higher Education*, *54*(7), 805–824. <u>https://doi.org/10.1007/s11162-013-9295-6</u>
- Conley, D. (2007). Redefining College Readiness. *Educational Policy Improvement Center*.
- Creswell, J. (2012). Educational research: Planning, Conducting, and Evaluating Quantitative and Qualitative research (4th ed.). Pearson.
- Crisp, G., & Delgado, C. (2014). The Impact of Developmental Education on Community
   College Persistence and Vertical Transfer. *Community College Review*, 42(2), 99–
   117. <u>https://doi.org/10.1177/0091552113516488</u>
- Darney, K., & Larwin (2018). Vocational Nursing Programs in Appalachia: The Impact of Technology on Traditional and Non-Traditional Students Experiences. *Career & Technical Education Research*, 43(2), 101–122.

https://doi.org/10.5328/cter43.2.101

- Datray, J., Saxon, D., & Martirosyan, N. (2014). Adjunct Faculty in Developmental Education: Best Practices, Challenges, and Recommendations. *Community College Enterprise*, 20(1), 36-49.
- Dickson, M., & Tennant, L. (2018). "The Accommodation I Make is Turning a Blind Eye": Faculty Support for Student Mothers in Higher Education. *Studies in Continuing Education*, 40(1), 76–97.

https://doi.org/10.1080/0158037x.2017.1392296

Dunlosky, J., Rawson, K., Marsh, E., Nathan, M., & Willingham, D. (2013). Improving

Students' Learning with Effective Learning Techniques: Promising Directions from Cognitive and Educational Psychology. *Psychological Science in the Public Interest*, *14*(1), 4-58. <u>https://doi.org/10.1177/1529100612453266</u>

- Jaeger, A., & Eagan, K (2009). Effects of Exposure to Part-time Faculty on Community College Transfer. *Research in Higher Education*, *50*(2), 168–188.
- Edgecombe, N. (2011). Accelerating the Academic Achievement of Students Referred to Developmental Education. *Community College Research Center (Working Paper No. 30, Assessment of Evidence Series)*. New York, NY.
- Ehrenberg, R., & Zhang, L. (2005). Do Tenured and Tenure-Track Faculty Matter? *Journal of Human Resources*, 40(3), 647-659.
- El Mansoour, B., & Mupinga, D. (2007). Students' positive and negative experiences in hybrid and online classes. *College Student Journal*, *41*(1), 242-248.
- Faulk, N. (2018). What Faculty Have to Say About Library Outreach: A Rural Community College Survey. *College & Research Libraries News*, 79(4), 193– 196.
- Felix, A., & Pope, A. (2010). The Importance of Community Colleges to the Tenth District Economy. *Economic Review (01612387)*, 95(3), 69–93.
- Fields, R., Parsad, B., National Assessment Governing Board, & Westat, I. (2012). Tests and Cut Scores Used for Student Placement in Postsecondary Education: Fall 2011. In National Assessment Governing Board. National Assessment Governing Board.
- Fike, D. (2008). Predictors of First-Year Student Retention in the Community College.

Community College Review, 36.

- Gabbard, A., & Mupinga, D. (2013), Balancing Open Access with Academic Standards: Implications For Community College Faculty. *Community College Journal of Research and Practice*, 37, 374381.
- Galupo, M., Pulice-Farrow, & Ramirez, J. (2017). "Like a Constantly Flowing River":
  Gender Identity Flexibility Among Nonbinary Transgender Individuals. In J. D.
  Sinnott (Ed.), *Identity flexibility during adulthood: Perspectives in adult development* (pp. 163–177). Springer International Publishing.
- Ganley, C., & Vasilyeva, M. (2011). Sex Differences in the Relation Between Math Performance, Spatial Skills, an Attitudes. *Journal of Applied Developmental Psychology*, 32, 235-242.
- Gurung, R., & McCann, L.(2011). How Should Students Study? Tips, Advice, and Pitfalls. *The Observer*, *24*, 33-35.
- Haeger, J. (1998). Part-Time Faculty, Quality Programs, and Economic Realities. New Directions for Higher Education, 1998(104), 81. <u>https://doi.org/10.1002/he.10408</u>
- Hagedorn, L., & Kuznetsova, I. (2016). Developmental, Remedial, and Basic Skills:
   Diverse Programs and Approaches at Community Colleges. *New Directions for Institutional Research*, 2015(168), 49–64.

Hagedorn, L., Siadat, M., & Fogel, S. (1999). Success in College Mathematics:
Comparisons Between Remedial and Nonremedial First-Year College Students. *Research in Higher Education*, 40(261)

Haglin, A. (2016). Instructor's Employment-Level, Instructor-Efficacy, and Knowledge

of Effective Classroom Strategies for Emotional Disorders. *Walden University*. Minneapolis, Minnesota.

- Hatch, D., Mardock-Uman, N., Garcia, C., & Johnson, M. (2018) Best Laid Plans: How
  Community College Student Success Courses Work. *Community College Review*,
  [s. l.], v. 46, n. 2, p. 115–144, 2018.
- Hayes, N., Fry, S., & Cummings, K. (2018). Designing a Writing Program for Non-Traditional Adult Students: a Case Study (HETL Scotland 2017). *Journal of Applied Research in Higher Education*, (2), 130.
- Hillman, N., & Orians, E. (2013). Financial aid's Role in Meeting State CollegeCompletion Goals. Education Finance and Policy. MIT Press
- Hoffman, T., & Lance, J. (2018). Developing and Implementing a PrekindergartenAssociate Degree Program Online to Meet the Needs of Non-traditional Students.AURCO Journal, 24, 129–143.
- Horn, L., & Skomsvold, P. (2011). Community College Student Outcomes: 1994–2009 (NCES 2012-253). Washington, DC: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education.
- Huitt, W. (2003). A Transactional Framework of the Teaching/Learning Process.Educational Psychology Interactive. Valdosta, GA: Valdosta State University.
- Hutto, P. (2017). The Relationship Between Student Retention in Community College Courses and Faculty Employment Status. *Community College Journal of Research and Practice*, 41(1), 4–17.

Hyde, J., Fennema, E., Ryan, M., Frost, L., & Hopp, C. (1990). Gender Comparisons of

Mathematics Attitudes and Affect: A Meta-Analysis. Sage, 14, 299-324.

- Jabbar, H., Sánchez, J., & Epstein, E. (2017). Getting from Here to There: The Role of Geography in Community College Students' Transfer Decisions. Urban Review: Issues and Ideas in Public Education, 49(5), 746–776.
- Jaggars, S., Hodara, M., Cho, S., & Xu, D. (2015). Three Accelerated Developmental Education Programs: Features, Student Outcomes, and Implications. *Community College Review*, 43(1), 36.
- Jibeen, T., & Khan, M. (2015). Internationalization of Higher Education: Potential Benefits and Costs. *International Journal of Evaluation and Research in Education*, 4(4), 196–199.
- Kearney, J., Stanley, G., & Blackberry, G. (2018). Interpreting the First-Year Experience of a Non-Traditional Student: A Case Study. *Student Success*, (3), 13.
- Keniston, L. (2016). Faculty Employment Status and Student Characteristics as
   Predictors of Student Success in Modularized Developmental Mathematics.
   Education Foundations and Leadership.
- Kezar, A., & Maxey, D. (2012). Missing from the Institutional Data Picture: Non-Tenure-Track Faculty. *New Directions for Institutional Research*, 2012(155), 47–65.
- Kolenovic, Z., Linderman, D., & Karp, M. M. mjm305@gmail. co. (2013). Improving Student Outcomes via Comprehensive Supports: Three-Year Outcomes From CUNY's Accelerated Study in Associate Programs (ASAP). *Community College Review*, 41(4), 271–291.

Lancaster, J., & Lundberg, C. (2019). The Influence of Classroom Engagement on

Community College Student Learning: A Quantitative Analysis of Effective Faculty Practices. *Community College Review*, 47(2), 136.

- Laerd statistics. ANCOVA. (2021) <u>https://statistics.laerd.com/spss=tutorials/ancova-</u>using-spssstatistcs.com
- Lei, S., & Lei, S. (2019). Evaluating Benefits and Drawbacks of Hybridcourses: Perspectives of College Instructors. *Education*, *140*(1), 1.

Lederman, D. (2019). Online is Increasing Low. Inside Higher Education

- Levin, J., Martin, M., López Damián, A., & Hoggatt, M. (2018). Preservation of Community College Logic: Organizational Responses to State Policies and Funding Practices in Three States. *Community College Review*, 46(2), 197.
- Lichtenberger, E., & Dietrich, C. (2017). The Community College Penalty? Examining the Bachelor's Completion Rates of Community College Transfer Students as a Function of Time. *Community College Review*, 45(1), 3–32.
- Linder, A., Hsin-Yi, L., Woodson-Smith, A., & Jinhong, J. (2018). Physical Activity
  Behaviors among Non-Traditional and Traditional College Students: An
  Application of Ajzen's Theory of Planned Behavior. *Negro Educational Review*, 69(1–4), 33–50.
- Lyde, A., Grieshaber, D., & Byrns, G. (2016). Faculty Teaching Performance: Perceptions of a Multi-Source Method for Evaluation (MME). *Journal of the Scholarship of Teaching & Learning*, 16(3), 8294.
- Lloyd, A., & Galupo, M. (2019). What People with Normative Identities Believe About Sex, Gender and Sexual Orientation. Psychology and Sexuality. *Advance Online*

- Martin, K., Galentino, R., & Townsend, L. (2014). Community College Student Success:
  The Role of Motivation and Self-Empowerment. *Community College Review*, 42(3), 221–241.
- Martinez, E. (2019). "The Rules Change": Exploring Faculty Experiences and Work Expectations Within a Drifting Community College Context. *Community College Review*, 47(2), 111.
- Marton, F., & Saligo. R. (1976). On Qualitative Differences in Learning: Outcome and Process. *Educational Psychology*, *46*, 411.
- Mayer, A., Patel, R., & Gutierrez, M. (2016). Four-Year Degree and Employment
  Findings from a Randomized Controlled Trial of a One-Year Performance-Based
  Scholarship Program in Ohio. *Journal of Research on Educational Effectiveness*, 9(3), 283–306.
- McCabe, R., & Day, P. (1998). Developmental Education: A Twenty-First Century Social and Economic Imperative. Mission Viejo, CAR: *League for Innovation in the Community College*.
- McCormick, J., & Barnett, K. (2011). Teachers' Attributions for Stress and Their Relationships with Burnout. *International Journal of Educational Management*, 25(3), 278–293.
- Melguizo, T., Kosiewicz, H., Prather, G., & Bos, J. (2014). How are Community College Students Assessed and Placed in Developmental Math? Grounding our Understanding in Reality. *The Journal of Higher Education*, 85, 691722.

- Millea, M., Wills, R., Elder, A., & Molina, D. (2018). What Matters in College Student Success? Determinants of College Retention and Graduation Rates. *Education*, 138(4), 309–322.
- Murphy-Nutting, M. (2003). Part-Time Faculty: Why Should We Care? *New Directions* for Higher Education, 2003(123), 33.
- National Center for Education Statistics. (2021). The Integrated postsecondary education data system glossary.

National Retail Federation. (2015). Back-to-college survey 2015.

Nelson, C. (1999). Our Campuses are in Crisis. National Forum, (1), 30.

- O'Shea, J. (2013). Gap year: How Delaying College Changes People in Ways the World Needs. Johns Hopkins University Press.
- Oudenhoven, B. (2002). Remediation at the Community Colleges: Pressing Issues, Uncertain Solutions. *New Directions for Community College*, *117*, 3543.
- Pannapacker, W. (2000). The Adjunct Rip-off: 10 Reasons Why the Use of Adjuncts Hurts Students. *Chronicle of Higher Education*.
- Parsons, T., & Shils, E. (1951). *Toward a General Theory of Action*. Harvard University Press.
- Pappano, L. (2015). First-Generation Students Unite. The New York Times.
- Penny, M., & White, J. (1998). Developmental Mathematics Students' Performance: Impact of Faculty and Student Characteristics. *Journal of Developmental Education*, 22(2), 2–12.

Perun, S. (2015). "What the Hell is Revise?" A Qualitative Study of Student Approaches

to Coursework in Developmental English at one Urban-Serving Community College. *Community College Review*, *43*(3), 245.

Pierce, D. (2015). Building Toward Completion: Five Years into President Obama's 2020 Completion Initiative, Some Community Colleges Find Ways to Move the Needle on Student Success. *Community College Journal*, 85(4), 24–26.

Pratt, T. (2017). The Open Access Dilemma. Education Next, 17(4), 35–41.

- Priode, K. (2019). Juggling School With Life: How the Successful Non-Traditional
  Nursing Student Says in School. *Teaching and Learning in Nursing*, 14(2), 117–121.
- Quarles, C., & Davis, M. (2017). Is Learning in Developmental Math Associated with Community College Outcomes? *Community College Review*, 45(1), 33.
- Riffell, S., & Sibley, D. (2004). Can Hybrid Course Formats Increase Attendance in Undergraduate Environmental Science Courses? *Journal of Natural Resources* and life Science Education, 33, 1-5.
- Roksa, J., Jenkins, D., Jaggars, S., Zeidenberg, M., & Cho, S. (2009). Strategies for Promoting Gatekeeper Course Success Among Students Needing Remediation: Research Report for the Virginia Community College System. New York, NY: Community College Research Center, Teachers College, Columbia University.

Sanders-McDonagh, E., & Davis, C. (2018). Resisting Neoliberal Policies in UK Higher

Rosenbaum, J., Becker, K., Cepa, K., & Zapata-Gietl, C. (2016). Turning the Question Around: Do Colleges Fail to Meet Students' Expectations? *Research in Higher Education*, 57(5), 519–543.

Education: Exploring the Impact of Critical Pedagogies on Non-Traditional Students in a Post-1992 University. *Education, Citizenship and Social Justice, 13*(3), 217–228.

- Sanem, J., Berg, C., An, L., Kirch, M., & Lust, K. (2009). Differences in Tobacco use Among Two-Year and Four-Year College Students in Minnesota. *Journal of American College Health*, 58(2), 151–159.
- Schnee, E. (2014). "A Foundation for Something Bigger": Community College Students' Experience of Remediation in the Context of a Learning Community. *Community College Review*, 42, 242261.
- Schenker, J., & Rumrill, P. (2004) Casual-Comparative Research Designs. *Journal of Vocational Rehabilitation* 21(3): 117-121
- Shaw, S., Spink, K., & Chin-Newman, C. (2019). "Do I Really Belong Here?": The
  Stigma of Being a Community College Transfer Student at a Four-Year
  University. *Community College Journal of Research and Practice*, 43(9), 657–660.
- Schudson, Z., Beischel, W., & van Anders, S. (2019). Individual Variation in Gender/Sex
  Category Definitions. *Psychology of Sexual Orientation and Gender Diversity*.
  Advance online publication.
- Schuetz, P., & Barr, J. (2008). Are Community Colleges Underprepared for Underprepared Students? Wiley/Jossey-Bass.
- Skaalvik, S., & Skaalvik, E. (2004). Gender Differences in Math and Verbal Self-Concept, Performance Expectations, and Motivation. Sex Roles, 50, 241–252.

- Skomsvold, P. (2015). Web Tables—Profile of Undergraduate Students: 2011–12 (NCES 2015–167). Washington, DC: National Center for Education Statistics, U. S. Department of Education.
- Stage, F., & Hossler, D. (2000). Lurking Student Behaviors, College Choice, and College Persistence. Nashville, TN: Vanderbilt University Press.
- Strickland, K. (2018). Transfer Students: The True American Ninja Warriors. *About Campus*, 23(4), 27–30.
- Stuart, G. R., Rios-Aguilar, C., & Deil-Amen, R. (2014). "How Much Economic Value Does my Credential Have?": Reformulating Tinto's Model to Study Students' persistence in community colleges. *Community College Review*, 42(4), 327–341.
- Subbaye, R., & Vithal, R. (2017). Gender, Teaching and Academic Promotions in Higher Education. *Gender & Education*, 29(7), 926–951.

Tabachnick, B., & Fidell, L., (2007). Using Multivariate Statistics. Pearson.

- Tian, Z., Wei, Y., & Li, F. (2019). Who are Better Teachers? The Effects of Tenure-Track and Part-Time Faculty on Student Achievement. *China Economic Review*, 53, 140–151.
- Tinto, V. (1975). Dropout from Higher Education: A Theoretical Synthesis of Recent Research. Review of Educational Research, 45: 89-125
- Tinto, V. (2006). Research and Practice of Student Retention: What Next? Journal of College Student Retention, 8(1), 1-19.
- Tolliver III, D., & Miller, M. (2018). Graduation 101: Critical Strategies for African American Men College Completion. *Education*, *138*(4), 301–308.

Travers, S. (2016). Supporting Online Student Retention in Community Colleges. *Quarterly Review of Distance Education*, *17*(4), 49-61.

- Trucker, J. (2014). Honors and the Completion Agenda: Identifying and Duplicating
  Student Success. *Journal of the National Collegiate Honors Council*, 15(2), 69–
  92.
- Ward, B. (2004). The Best of Both Worlds: A hybrid statistics course. Journal of Statistics Education, 12(3).
- Weiss, M., Mayer, A., Cullinan, D., Ratledge, A., Sommo, C., & Diamond, J. (2015). A Random Assignment Evaluation of Learning Communities at Kingsborough Community College—Seven Years Later. *Journal of Research on Educational Effectiveness*, 8(2), 189–217.
- Wickrun, W., & Stanley, R. (2000,). The Role of Adjunct Faculty in Higher Education. The Montana Professor, *10*(1)
- Whiton, J., Rethinam, V., & Preuss, M. (2018). High School Factors Predicting Enrollment in developmental courses. *Journal of Developmental Education*, 42(1), 8–32.
- Williams, D., & Siwatu, M. (2017). Location of Developmental/Remedial Coursework Predicts Successful Completion of College Algebra: A Study of Louisiana's Developmental Students. *Educational Research Quarterly*, 40(4), 24–45.
- Woods, C., Richard, K., Park, T., Tandberg, D., Hu, S., & Jones, T. (2017). AcademicAdvising, Remedial Courses, and Legislative Mandates: An Exploration ofAcademic advising in Florida Community Colleges with Optional Developmental

Education. Innovative Higher Education, 42(4), 289–303.

- Xu, D. (2019). Academic Performance in Community Colleges: The Influences of Part-Time and Full-Time Instructors. *American Educational Research Journal*, 56(2), 368.
- Xu, D., & Dadgar, M. (2018). How Effective are Community College Remedial Math Courses for Students with the Lowest Math Skills? *Community College Review*, 46(1), 62.