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Barriers To Access And Success For Rural Community College Students At Rural Community And Technical College: Understanding The Effect Of A Mandatory First-Year Experience Course On Retention And Persistence

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BARRIERS TO ACCESS AND SUCCESS FOR RURAL COMMUNITY COLLEGE STUDENTS AT RURAL COMMUNITY AND TECHNICAL COLLEGE: UNDERSTANDING THE EFFECT OF A MANDATORY FIRST-YEAR EXPERIENCE COURSE ON RETENTION AND PERSISTENCE

BY

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DEDICATION

This dissertation is dedicated to my parents, Johnny and Irene (Vires) Spencer, for helping me realize that I can accomplish any goal I set for myself, as long as I am willing to work for it, to my sister Samantha (Spencer) Hobbs, brother-in-law Brandon, my nephews, Emerson John and Garrison James, and my niece, Everly Irene, for being part of my support, and part of my 'why', to my husband, Don Barnes, who always supports me in everything I do, who is the best thing to ever happen to me, and who never misses an opportunity to praise me for my accomplishments, to my sons, Jon and Tyler Barnes, their beautiful wives, Tara (Dykes) Barnes and Jennifer (Drake) Barnes, and my grandchildren, Brayden Barnes, Ella-Grace Barnes, Jacob Barnes, and David Barnes, for their love and support, to my father and mother-in-law, Donald and Shirley Barnes, to Dr. McCall, who during leadership training encouraged all of us to 'go for it', for the time will pass anyway, to my friends, family, and mentors, who have all inspired me along the way, and last but not least, to my HCTC family – the Faculty, Staff, and Students, who have all been an amazing part of this journey, and who continue to shape who I am, and who I will become.

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Him, I am nothing. I will never forget the blessings I have received and continue to receive during this life that allow me to live life to the fullest every day!

ABSTRACT

This study examined the effect of a mandatory first-year experience course on retention and persistence. More specifically, this study examined the effect of a mandatory first-year experience course on in-semester retention and semester-to-semester persistence rates for rural community and technical college students at one rural community and technical college in Southeastern Kentucky. Existing data about in-semester retention and semester-to-semester retention rates was used for students who took a mandatory first-year experience course as well as for students who did not take the mandatory first-year experience course. The data was analyzed using an independent samples t-test for each group to do a comparison of means. The data for all three independent samples t-tests indicated that retention and persistence rates for students who took the mandatory first-year experience course were lower than the in-semester retention and semester-to-semester persistence rates for students who were not required to take the course. Implications for further research are discussed.

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Chapter I

Introduction

Students who attend rural community colleges are often impacted by barriers that many of their urban counterparts do not face. These barriers can keep rural community college students from beginning the pursuit of higher education. Students who do begin at regional community colleges have decreased chances of finishing their first semester, therefore they never walk across the stage to complete their program or degree. According to Coley (2000), there are seven demographic factors that put students at risk of not earning a degree or completing a program. These are "delayed entry, part-time enrollment, full-time work, financial independence, dependents, single parenthood, and community college attendance without a high school diploma" (p. 17). There are many other issues, both academic and non-academic, that students face when it comes to access and success at rural community colleges. Some of these include: customs and attitudes that do not promote education; being first-generation college students; lack of parental knowledge about higher education; poor attendance due to external factors; being underprepared for college-level work; strong family ties; lack of transportation; lack of childcare; lack of work ethic; maturity; and soft skills; poverty or financial strain; and poor economic conditions in the community.

Scott et al. (2016) concluded that there are a wide variety of students entering community colleges, ranging from at-risk students to those who have low income, are the first in their family to attend college, and have disabilities that need accommodations. These defining characteristics can be added to the list of barriers faced by students

attending rural community colleges. Morton et al. (2018) found that students' perceptions of their rural community were directly related to its size and closeness, with thoughts that there is very limited ability to participate in educational, social, and economic opportunities. When asked about college access, the students reported that academic achievement, financial ability, and social issues were all barriers to access. The issues with college access were further compounded by the findings of Morton et al. (2018), stating that "The nearest colleges were reported to be anywhere from 45-120 minutes away from their hometowns" (p. 162). These geographical distances, combined with poverty and lack or transportation, can prove to be very detrimental to student access and success.

In addition to geographical distance as a barrier to access, Gagnon and Mattingly (2016) discussed rural students' lack of access to AP courses while in high school, concluding that rural students are not sufficiently prepared, and rural teachers have teaching limitations as well as challenges with implementation. This lack of access, given rural teachers' teaching limitations, to AP courses while in high school only serves to add to the number of students who enter postsecondary institutions without that advantage of being able to earn college credits while in high school. In a study conducted by Scott et. al. (2016), the main barriers identified were financial, access to home computer or internet, academic performance (low GPA), and owning a computer. Pratt et al. (2017) also discussed financial concerns as an issue to student success, citing that first generation college students who were concerned about finances and paying for college would have to work while in school, therefore decreasing the chance of them being involved on campus and connected to their peers. Smith (2017) reported that

"Food, transportation, housing, health care, and childcare insecurities and lack of access to broadband internet" were among the many concerns discussed by community college leaders at a recent conference she attended (p. 1). These risk factors contribute to a lack of academic success for rural community college students, especially when students are likely to have not just one, but several of these barriers to overcome. According to Stewart et al. (2015), "It is imperative that students resolve academic and transition issues early during the first year to help underprepared students be successful in higher education" (p. 18).

Students who can resolve these barriers to access and success within their first year have a greater chance of being successful with their rural community college experience. The first-year seminar provides a place, usually during the first semester, for new students to investigate their entrance into college and the impact it can have on their growth as a college student (Bers & Younger, 2014). According to the research (Bers & Younger, 2014; Cho & Mechur Karp, 2013; Connolly et al., 2017; Hatch et al., 2018; Hoops & Artrip, 2018; Kimbark et al., 2017; & O'Gara et al., 2009), student success courses have had a positive impact on student success, retention, and persistence. Student success courses (SSC) and First-Year Experience courses (FYE) teach skills such as study skills, time management, career exploration, transfer options, campus and technology resources, personal finance, and strategies for achieving academic success. These courses are designed to help students with the transition from high school to college to career. In their study, Connolly et al. (2017) focused on at-risk students. Their main focus on promoting social engagement with other FYE classmates was: connecting FYE students with their instructors; making connections between students and their

advisors; and encouraging effective learning strategies; as well as encouraging campus participation; and teaching skills such as time management; financial and personal health; and self-care. Results of that study indicate an increase in GPA and academic success during the at-risk students' first semester. Kimbark et al. (2017) focused on social skills such as faculty/peer engagement and study skills such as note taking, time management, and decision making. They found a statistically significant relationship between participating in the student success course and staying in school, persisting to the next semester, and high academic achievement. Several studies indicate that there are positive effects on retention, persistence, and academic achievement for students who participate in first-year experience courses and seminars.

Background of the Problem

Students who attend rural community colleges have unique challenges that hinder their academic success, therefore decreasing the chances they will graduate with their two-year degree. For students who entered Rural Community and Technical College (RCTC) in Fall 2014, their graduation rate by Fall 2017 was 30% ("Student Disclosure", 2020). According to Scott et al. (2016), students attending rural community colleges have difficulties with resources, challenges with their past records, and their level of preparedness after graduating high school. Coley (2000) discusses seven demographic factors that put students at risk of not graduating, "delayed entry, part-time enrollment, full-time work, financial independence, dependents, single parenthood, and community college attendance without a high school diploma" (p. 17). Schmid and Abell (2003) indicated that students who attend community colleges are highly likely to exhibit many of these demographic factors. Students who attend four-year colleges are less likely to

have a large number of these factors: such as customs and attitudes that do not promote education; being first-generation college students; lack of parental knowledge about higher education; poor attendance due to external factors; being underprepared for college-level work; strong family ties; lack of transportation; lack of childcare; lack of work ethic; maturity; and soft skills; poverty or financial strain; and poor economic conditions. According to Schmid and Abell (2003), "…24% of students entering community colleges had 4 or more of these demographic factors. In contrast, only about 4% of students at public four-year colleges showed this level of risk" (p. 4). Rural community colleges provide an opportunity for students who might have previously thought that college was not an option. Garza and Eller (1998) noted that there are specific populations that might have thought of college as a foreign idea. They include students who did not finish high school or received a GED, students who did not excel in high school, and non-traditional students who have been out of school for a while. The population also includes adult learners who may need technical training and skills for a growing workforce. Garza and Eller (1998) also note that community college is not just for at-risk populations, but community college provides an affordable education for all students while allowing them to stay close to home.

Reducing the barriers to access and success for at-risk populations is extremely important to help students be successful in their college classes and persist to graduation. According to Waters-Bailey et al. (2019), many of the students who enter community college will at some point face a non-academic obstacle. Colleges need to find ways to support students suffering from non-academic issues to increase student success academically. Rural community colleges must find ways to develop programs and

intervention strategies that prove successful for rural community college students. Pratt et al. (2017) found that interventions for first generation college students must happen once they arrive on campus, since college administration often does not have the ability to affect change at the K-12 level or influence the students' environment prior to entering college. This study will focus on whether a mandatory first-year experience course affects these academic and non-academic barriers, therefore improving in-semester retention and semester-to-semester persistence for students attending rural community colleges. Through this research, it is anticipated that a mandatory first-year experience course can be shown to help students overcome these barriers and be successful. Furthermore, this research will serve to help educators understand the barriers that exist as well as ways in which everyone, faculty, staff, and administrators, can help students be successful. After all, student success should always be the number one priority in institutions of higher learning.

Purpose of the Study

This study is designed to investigate the effect of a mandatory first-year experience course on retention and persistence. It is important for everyone in higher education to understand the barriers that impact access and success for rural community college students, as well as to develop and implement successful intervention programs that can help increase retention and persistence rates, therefore increasing the number of students that complete degrees and programs.

The purpose of this study is to investigate the impact a mandatory first-year experience course has on in-semester retention rates and semester-to-semester persistence

rates, specifically for rural community and technical college students at Rural Community and Technical College (RCTC) in Southeastern Kentucky. Students at RCTC face many barriers to access and success. If in-semester retention and semester-to-semester persistence rates can be improved through the implementation of a mandatory first-year experience course, then it can be said that the mandatory first-year experience course has also had an impact on the barriers to access and success. If the barriers to access and success can be reduced or eliminated, students could have a better chance of completing their program or graduating with their degree.

Research Questions

1. To what extent does a mandatory first-year experience course affect in-semester retention rates for first-time, full-time Associate in Science (AS), Associate in Arts (AA), or Undecided students who were required to take the mandatory first-year experience course when compared to students who did not take the course?
2. To what extent does a mandatory first-year experience course affect semester-to-semester persistence rates (fall-to-fall and fall-to-spring) for first-time, full-time Associate in Science (AS), Associate in Arts (AA), or Undecided students who were required to take the mandatory first-year experience course when compared to students who did not take the course?

Significance of the Study

After completing this study, the results will add to the current research on how mandatory first-year courses affect in-semester retention and persistence rates for rural community college students, therefore reducing or helping to eliminate the barriers they encounter on a daily basis. In addition, this study will add to the research on how mandatory first-year experience courses can help students be successful from start to finish, helping them be successful in college so they can make a successful transition

from college to career and beyond. This study will also aim to help rural community college faculty and staff understand that mandatory first-year experience courses can be successful in helping to reduce or eliminate the barriers to access and success faced by many rural community college students. The current research on first-year experience courses and programs is limited and based mainly on first-year experience courses at Universities, so this study will also help to broaden the research base available on first-year experience courses and programs at the two-year level.

Definition of Terms

For the purposes of this study, there are a few terms that need defined.

Associate in Science degree – this is the two-year science degree offered at RCTC.

Associate in Arts degree – this is the two-year arts degree offered at RCTC.

First-Year Experience Course (FYE) – can be used interchangeably with "Student Success Course" (SSC). At RCTC, the first-year experience course is FYE 105 – Achieving Academic Success. The course helps with the transition from high school to college and on to career.

First-Generation College Student – refers to a student whose parents did not obtain a college degree, or more traditionally, the first in their family to attend college

First-Time, Full Time Student – refers to students who are enrolled at RCTC for the first time, and they are taking a full-time credit hour load

Hybrid Course – refers to a course that is half in-person, half online, usually meeting one day per week in-person for one hour fifteen minutes, the rest of the work is online through a course management system

In-Person Course – refers to a course that is fully in-person, usually meeting two days per week for one hour fifteen minutes each day

Online Course – refers to a course that is 100% online with no in-person component

Persistence – In this study, persistence is semester-to-semester persistence – specifically Fall to Fall and Fall to Spring persistence.

Retention – In this study, retention is defined as in-semester retention – whether the students finished the courses they were enrolled in for a given semester.

Rural Community and Technical College (RCTC) – in this study, Rural Community and Technical College (RCTC) will be used to describe the rural community college in Southeastern Kentucky where this study is being conducted.

Undecided – students who have not yet declared a major are labeled 'undecided'.

University (Four-year Institution) – four-year institution that offers degrees at the four-year (Bachelors) level

Chapter II

Literature Review

For this study, barriers to access and success will be organized into specific categories. Barriers to access will include providing college to those that otherwise might not have thought college was an option, targeting those who have limited access to college information, and students who have a lack of support from family as related to applying and attending college. Barriers to success will include demographic barriers, academic barriers, and non-academic barriers. For this study, demographic barriers include factors such as delayed entry, part-time enrollment, full-time work, financial independence, dependents, and attending community college without a GED or high school diploma (Coley, 2000). Academic barriers include students' lack of academic preparedness. Non-academic barriers will focus on factors such as being first-generation students, strong family ties, lack of transportation, lack of childcare, lack of work ethic/maturity/soft skills, poverty or financial strain, and poor economic conditions. Barriers facing the student prior to enrolling in a rural community college will be discussed, along with strategies to increase student success. Research on first year experience programs and their effectiveness will also be included in this literature review as a strategy to increase student success and decrease these academic and non-academic barriers that students face at the rural community college level.

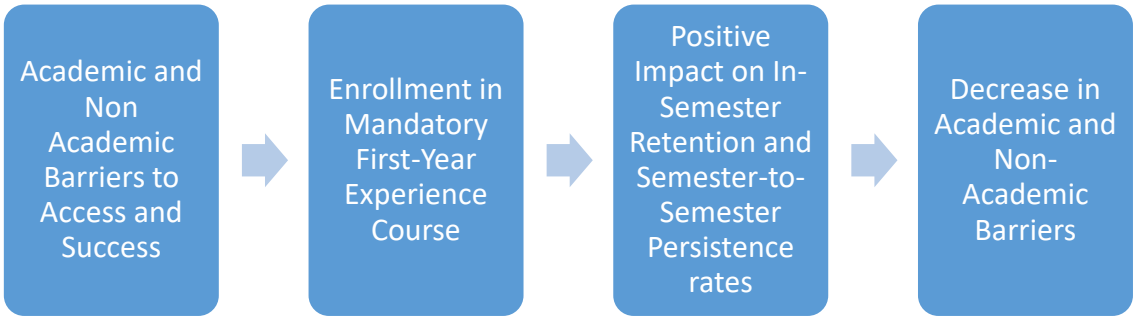
Theoretical Framework

Tinto and Cullen (1973) and Tinto (1975) examined the dropout trend in higher education, and these findings can be used for the theoretical framework lens through

which this study was conducted. Tinto and Cullen (1973) and Tinto (1975) looked first at what happened to the student prior to arriving at college, examined the students' goals once accepted to college, investigated what happened to the student while enrolled, and then sought to determine why they were retained or chose to depart, adding to the research on why students persist or dropout. The research (Ayers, 2010; Bright, 2018; Coley, 2000; Gagnon & Mattingly, 2016; Hendrickson, 2012; Grimard & Maddaus, 2004; Morton et al., 2018; Pratt et al., 2017; Petty, 2014; Scott et al., 2016; Stewart et al., 2015) that has been conducted focuses on barriers to access and success for first generation and rural community college students. These studies were conducted to outline the barriers to access and success, then determine what, if any, interventions would be necessary to help students persist to college completion. Hoffman et. al. (2017) added to this research, stating that "Youths attending rural schools face significant barriers to learning and academic success" (p. 147). Hoffman et. al. (2017) studied the perceptions of middle school students and their school experiences, and they found that connections, motivation, and relationships with their peers positively impacted their academic performance.

In theory, the idea for this study is that the academic and non-academic barriers to access and success for students do exist but can be minimized through proper interventions. By enrolling in a mandatory first-year experience course, students can gain the skills and strategies necessary to be retained in the classroom and to persist to the next semester, and ultimately, to graduation. In doing this, students will have learned to better deal with the academic and non-academic barriers that stood in their way, therefore leading to success for the student. This framework can be seen in Figure 1.

Figure 1 Theoretical Framework



Barriers to Access

Rural community colleges have often been described as institutions that are open access and highly affordable. Ayers (2010) described the community college purpose as having "open access and commitment to students" (p. 2). According to Ayers, students are most often faced with the choice of community college or nothing, not community college or a four-year institution. Adding to the research, Garza and Eller (1998) indicate that in some demographics, the concept of an education is foreign. These authors (Ayers, 2010; Garza and Eller, 1998) cite the community college as being the only opportunity for higher education that some students have. These populations already experience barriers in employment as well. Garza and Eller (1998) found that Community Colleges needed to increase access to higher education as well as increase economic development. Other authors (Grimard & Maddaus, 2004; Petty, 2014) have added to the research on barriers to access, discussing barriers for youth in attending college, which included limited access to college information and less support from their families to attend

college. Grimard and Maddaus (2004) surveyed students, guidance counselors, and parents to determine the barriers that students that exist for students wanting to attend college, why students choose to participate or not participate in Upward Bound, and what effect participation in this type of program can offer, finding that enrollment in this type of program can provide academic, social, and financial benefits. Petty (2014) studied the barriers that impact academic success, and found that by understanding what motivates students, both intrinsically and extrinsically, colleges can develop programs that can help with challenges and weaknesses. Hendrickson (2012) studied students in rural Appalachia and their resistance to education. It was found that there are three underlying themes as to why students resist education. According to Hendrickson (2012), the three themes were "family values and expectations, quality and relevance of education, and misunderstandings between teachers and students" (p. 42). The families wanted students to engage in their family business, and for this, college was not necessary. The students' families did not see the value in attending college, and they could not provide any information to the students about college. Students often felt the pressure to keep their parents or families content, which often did not include doing well in school or going to college.

Barriers to Success

Barriers to success will include demographic barriers, academic barriers, and non-academic barriers. Demographic barriers include factors such as delayed entry, part-time enrollment, full-time work, financial independence, dependents, and attending community college without a GED or high school diploma (Coley, 2000). Academic barriers include students' lack of academic preparedness, such as needing remediation in

math, English, and reading. Non-academic barriers will focus on factors such as being first-generation students, strong family ties, lack of transportation, lack of childcare, lack of work ethic/maturity/soft skills, poverty or financial strain, and poor economic conditions. Barriers facing the student prior to enrolling in a rural community college will be discussed, along with strategies to increase student success.

Demographic Barriers

Coley (2000) defines seven demographic risk factors that put students at risk for not achieving a degree or completing a program. These include "delayed entry, part-time enrollment, full-time work, financial independence, dependents, single parenthood, and community college attendance without a high school diploma" (p. 17). These are all issues that can cause students to not be successful in rural community colleges. Schmid and Abell (2003) found that students attending community colleges were more likely to have one or more of these risk factors than their counterparts at four-year universities. A small amount of research is discussed in this article in terms of helping these at-risk students persist despite the challenges they face. According to Schmid and Abell (2003), on-campus activities, encouraging students to form study groups, having open or inviting faculty, as well as educating students on the availability of student aid, are all positive interventions community colleges can engage in to help students persist and succeed. These interventions are a good starting point in helping answer some the research questions posed in this study. This study will help discover how these barriers are affected by a mandatory first-year experience course at Rural Community and Technical College.

Academic Barriers

Lack of Academic Preparedness

Several authors (Blanchard et al., 2009; Byrd & MacDonald, 2005; Petty, 2014; Schmid & Abell, 2003; Stewart et al., 2015) conducted studies related to the growing problem of lack of academic preparedness. Both first-generation college students and adult learners are said to be underprepared in at least one area – reading, writing, or math. In their study on college readiness and first-generation college students, Byrd and MacDonald (2005) found that "…41% of entering community college students and 29% of all entering college students are underprepared in at least one of the basic skills of reading, writing, and math" (p. 2). Students need options that will allow them to remediate as quickly as possible, so that they can move on to college-level courses and degree attainment. Research conducted by Petty (2014) indicates that post-secondary institutions need to provide a variety of options to help students overcome their barriers, with one example being bridge programs that will help close the divide between graduating high school and being unprepared for college work. In their study on factors that promote student persistence for first-time students, Stewart et al. (2015) found that there are several intervention programs, including tutoring, advising, and counseling, that can help underprepared students be more successful in college.

Non-Academic Barriers

First-Generation College Students

Defining what constitutes a first-generation college student is sometimes difficult. The research (Petty, 2014; Schultz, 2004) defines first-generation college students as the

first in the family to attend college, which are most often traditional-aged students who have just graduated from high school, while others have indicated that first-generation students are now more likely to already be married, older, already have children, come to college part-time, and lack the motivation to participate in campus activities. Pratt et al. (2017) defines the first-generation college student as students whose parents do not have a four-year degree, and they are also students who have unique issues when compared to students who are not first-generation college students.

However first-generation college students are defined, it is evident that labeling a student 'first-generation' automatically means they are at risk for persisting and succeeding in college. According to Schultz (2004), the factors that make being a first-generation student a barrier are not knowing about the cost of college or financial aid, lack of parental information about college since parents of first-generation college students did not attend college themselves, the surprise of how difficult college courses can be, the structure of college courses, and expectations from professors. The issue of poverty also confounds the barrier of being first-generation because most first-generation students must work to support themselves since their parents did not attend college and will often have lower paying jobs as a result. Pratt et al. (2017) also found that first generation students must overcome many barriers when entering college, including coming from low-income families, which places an added stress on the student to support themselves financially, leaving less time to focus on academics. First-generation students have less confidence that they can succeed academically, an unwillingness to socially fit in on campus due to having to disconnect from their family life, feeling guilty that they can attend college while their family members were unable to attend, and a lack of

feeling included on college campuses. All these factors make being a first-generation student a barrier to academic success.

Strong Family Ties

There seems to be limited research on how strong family ties can be a barrier to success in college. Hendrickson (2012) has conducted some research on students in rural Appalachia and why they seem to be resistant to education, discussing how students are often torn between keeping their families happy, no matter what that meant, instead of attending college and doing well in school. Barcus and Brunn (2010) also studied how strong place elasticity and strong ties to the Eastern Kentucky make it less likely that rural Appalachians will migrate elsewhere. The goal of their study was to find out why people would stay in their geographic areas despite there being better opportunities elsewhere, and they found that people need to keep strong place attachments to the area by either living there or keeping close networks with those who do live there. Hendrickson (2012) reported that students were more likely to choose the family business or something that did not require a college degree, if that is what their parents wanted them to do. Students will miss class to take care of family members or take them to medical or other appointments, much to the detriment of their success in those classes. Pratt et al. (2017) added to this research, concluding that students will often refuse to immerse themselves on campus due to having to break ties with their family support system as well as having a feeling of guilt that they are able to attend college when their family was not able to attend. The strong family ties often pull students back home and away from college success.

Lack of Transportation

Garza and Eller (1998) discuss the geographic distances that many rural community college students must travel, stating that large geographic distances and lack of transportation prohibits many rural families from seeking a higher education. Adding to this research on geographical distances, in their study on barriers affecting students from rural high schools, Morton et al. (2018), found that "The nearest colleges were reported to be anywhere from 45-120 minutes away from their hometowns" (p. 162). Garza and Eller added that increasing online offerings as well as off-campus offerings are a couple of ways to reach those in geographic distances. However, this does not solve the problems incurred if, for example, students want to take face-to-face classes but do not have access to reliable transportation. Increasing online offerings is also not a feasible option in areas where access to reliable internet is an issue, as it happens to be in many rural areas. Scott et al. (2016) conducted a study on rural community college students and their perception on barriers to college enrollment, identifying access to home computer or internet and owning a computer as barriers to access and success for rural community college students.

Lack of Childcare

The lack of childcare in rural areas is another barrier to success for rural community college students. Ames et al. (2006) conducted a study on working women in a rural community. They concluded that women often balance many issues, such as working, raising a family, and getting their education. During their interviews, Ames et al. (2006) reported that "Childcare availability and flexibility surfaced as a concern for

workforce development" (p. 123). "The urgent need for reliable, affordable childcare that accommodates those with nontraditional schedules was a persistent theme" (Ames et al., 2006, p. 125). Waters-Bailey et al. (2019) conducted a study on the nonacademic barriers that rural community college students face, and they listed childcare as one of those nonacademic barriers. They found that more students who are low-income attend community college, and those students are more likely to need childcare while they attend than their university counterparts. It seems that more research is needed in this area to understand in-depth how lack of childcare affects student success.

Lack of Work Ethic/Maturity/Soft Skills

Students often come to college without knowing what it means to be a successful college student. They lack work ethic, maturity, and the soft skills needed to be successful in their individual courses, which then transfers to lack of degree completion. Byrd and MacDonald (2005) conducted a study on college readiness focusing on academic preparedness, student behaviors, and non-academic behaviors, finding that,

> In addition to recognized academic skills, participants in this study indicated that (a) skills in time management, (b) the ability to apply oneself and focus on a goal, and (c) skills for advocating for oneself as a learner are essential for college readiness. (pp. 5-6)

These factors contribute to having the maturity or soft skills necessary to succeed in college. Without these skills, students often do not complete assignments on time, exhibit poor attendance, and are hesitant to complete work outside the college classroom.

Poverty/Financial Strain

Poverty and/or financial strain has been discussed as a barrier to academic success in this chapter. The literature (Ames et al, 2006; Grimard & Maddaus, 2004; Herzog & Pittman, 1995; Pratt et al., 2017; & Scott et al., 2016) concluded that poverty is a factor in low completion rates in high school and college, for several reasons. Morton et. al. (2018) found that if students felt college was too expensive, or they did not know how they would pay for it, they just chose not to pursue a college education. In addition to the cost of attending college, Hoffman et. al. (2017) noted that students in rural areas are often faced with economic pressures and less than desirable living conditions because of poverty, which can hinder academic success. Furthermore, living in poverty becomes an issue that is trifold. Poverty also becomes a barrier to academic success because most rural community college students must work while attending college, therefore taking the focus away from attending classes and completing coursework (Ames et al., 2006; & Grimard & Maddaus, 2004). Herzog and Pittman (1995) added to this research, commenting that the trends that are now affecting rural schools and communities are a decreasing population, a lack of jobs, working poor who feel trapped in low paying jobs, lower high school and college completion rates, and school consolidation.

Smith (2017) discusses how rural community colleges are faced with students who drop out for reasons beyond academics. According to Smith (2017), poverty looks different for a student in a rural community college when compared to students in urban community colleges. Things like going to class and succeeding fall to the wayside when students are concerned about making the bills or putting food on the table. Students must find ways to be successful in college while balancing work and school. Students are

often torn between going to work to provide for their family or coming to class to better themselves by completing classes successfully and getting a degree. Smith (2017) also discusses how rural community colleges often face funding cuts from legislature, therefore making it a hardship to provide necessities to college students. Often, churches are already hit hard from community needs, so rural community colleges must use their own budget to cover necessities for students, and this most often spans across several counties. In research conducted by Smith (2017), colleges are doing some unconventional interventions to help students succeed, such as moving class start times to later times so students are not afraid of being late, negotiating lower hotel rates for students who need housing, partnering with shelters, offering free maintenance and car repairs to students through the automotive program, and offering extended hours for internet usage on campus.

Economic Conditions

Poor economic conditions can prove very detrimental to academic success. Valadez (2000) studied thirteen women in a work education program over the course of one year, and they found that many rural community college students cannot see the value in obtaining a college education or how that education can help them have a better quality of life. Students could not connect that working but remaining poor was better than being on public assistance. Once students finished the work education program, poor economic conditions meant little to no jobs were available. Furthermore, Barcus and Brunn (2010) reported that citizens of rural areas are less likely to seek out opportunities to better themselves if it means moving away from the areas where they have strong attachment. More research is needed here to determine what can be done to

increase the opportunities for the rural community college students who cannot see the value of an education, because they cannot see the opportunities in the communities where they live.

Barriers Facing the Student Prior to Enrolling in a Rural Community College

It is evident that there is much research that focuses on identifying the barriers that impact access and success for students as they transition from high school to rural community college. A different group of students are also impacted by barriers to rural community college access and success. As students transition from high school to GED to rural community college, there is also a wide variety of research that focuses on barriers that these students face before they ever attend community college. These barriers that have impacted students prior to applying for acceptance into community college carry with them when they enter the community college setting. If students did not have a way to effectively deal with these barriers prior to community college, then the same barriers and bad habits transfer into the community college when students arrive. Poor class attendance adds to this lack of academic achievement. Isserlis (2008) conducted a study on adult basic education programs, citing the challenges faced in these programs, and recommending ways in which adult educators can overcome these challenges. According to Isserlis (2008), adult education students working to earn their GED can miss class due to a variety of reasons, including lack of childcare and lack of transportation. Adult educators must be willing to recognize these challenges and embrace changes needed to help adult students overcome these barriers and succeed. Adding to the research in this area, Terry (2006) discussed how adult learners change as they go through adult education programs, indicating an increase in self-confidence as

well as personal improvements and academic gains when they have program successes. Comings (2007) conducted a study on persistence and helping adult education students reach their goals. He discussed motivation as one of the key factors in helping students overcome barriers to participation in adult education programs, and found that adding persistence supports to the programs, as well as changing the programs so that adult students could participate easier, are two ways to increase persistence for adult education students.

Griffin & Galassi (2010) conducted two focus groups, one with parents of successful children and one with parents of at-risk children in a rural middle school. Several themes emerged, with identified barriers in each theme. Griffin & Galassi (2010) reported these barriers as a lack of family support, single-parent families, lack of knowledge about what resources are available in the school, lack of communication between parents and teachers, students' lack of understanding of the material with the fear of asking for help, lack of mentoring, lack of student preparation from lower grades, and classroom disruptions due to behavior problems. This research suggests that barriers develop much earlier, even before students arrive at the community college. Fleming and Grace (2014) looked at an outreach program designed to increase students' participation in higher education. They found that this outreach program was beneficial in increasing students' thoughts about participating in higher education options.

Strategies to Increase Student Success

Hlinka, Mobelini, and Giltner (2015) found that there were three underlying themes in their research on barriers impacting student success in a rural community college, coddling versus cutting the apron strings, push of encouragement versus pull of

family, and whether or not to stay versus leave the area. Hlinka et al. (2015) concluded with several recommendations for how students can be helped through their academic pathway, including helping build social networks so students can feel a sense of belonging, providing opportunities to build relationships with transfer Faculty and Staff, helping students come up with strategies to balance family and school, and building up career counseling so students can set realistic goals about staying in the community or leaving for work. In addition, Hlinka (2017) found that poverty, ruralness, and unique cultural values affect student success at rural community colleges. Bischoff (2006) discusses his experience as a first-generation college student and how he was able to become a Director of Admissions at Caltech. His experiences as a first-generation college student allows him a better insight into helping at-risk students at Caltech. Wettersten et al. (2005) concluded that relationships, specifically parent-child relationships, were critical to rural youth's attitudes about school. The literature (Brock, 2010; Eitel & Martin, 2009; Moore, 2009; Volokhov, 2014;) on barriers to student success cites barriers such as high remediation rates, lack of study skills, being first-generation, being non-traditional, financial aid, and financial literacy needs as factors to keep students from succeeding. Andrews and Osman (2015) conducted a study on underprepared university students and found that students who do not graduate are underprepared academically, and they also tend to come from disadvantaged backgrounds. Scott et al. (2016) found that barriers such as weak economies, geographic distance, lack of preparedness, lack of access to technology, poor educational prep, and being first-generation also contribute to the lack of success for rural community college students. Genco (2007) conducted a study on adults entering community colleges and the

experiences they face prior to entry, and she found that there are four categories of barriers, which include situational, institutional, dispositional, and information barriers. These barriers range from money issues or family dynamics to policies and procedures, to things such as self-perception and attitudes. Fowler and Boylan (2010) studied both the academic and non-academic factors that contribute to student success, including "medical issues, transportation, financial and work issues, as well as family issues such as caring for children" (p. 2). The results of their study indicate that student success and retention can be increased by addressing these personal and nonacademic factors that inhibit student success through providing clear guidelines for the students, integrating transitional coursework, intrusive advising, incorporating traditional developmental education coursework and tutoring to help them be academically successful.

Waters-Bailey et al. (2019) stated that it is pertinent for college faculty, staff, and administrators to create interventions that will help at-risk students combat the barriers that continue to challenge them while they work toward degree completion. When trying to determine ways rural community college faculty members can meet the needs of their students and help eliminate barriers to access and success, some unique challenges were discussed. Eddy (2007) found that rural faculty tend to have fewer resources to work with, therefore their job is more difficult. Rural faculty tend to be more isolated, without the cultural or shopping opportunities that urban faculty can enjoy. During the study, urban and rural faculty identified some similar challenges, such as assessment and underprepared students, although the rural faculty response was more prominent. Integrating technology into the classroom and trying to balance roles of the faculty were also similar responses. According to Eddy (2007), rural faculty identified "program

assessment...student-centered learning...teaching online...and training part-time and adjunct faculty" (p. 68). Research conducted by Morton et. al. (2018) added to this area, noting that students in rural areas often do not have access to updated technology, an adequate number of school teachers and counselors, or access to AP classes and exams. The literature (Ellis-O'Quinn, 2012; Fowler & Boylan, 2010) discusses first-year experience and orientation programs as ways in which community colleges can help increase success for students at risk. When studying successful strategies for rural community college leadership, Freeman and Randolph (2013) found significant differences in academic achievement between rural, suburban, and urban students, indicating that the emphasis placed on education by family members was much less in rural areas than in other areas.

First-Year Experience Courses and Programs

The literature (Bers & Younger, 2014; Cho & Mechur Karp, 2013; Connolly et al., 2017; Hatch et al., 2018; Hoops & Artrip, 2016; Kimbark et al., 2017; O'Gara et al., 2009) conducted on on first-year experience courses and programs suggests that there is a positive correlation between students being enrolled in a first-year experience course and their academic success, as well as their persistence into the next semester. There is a limit to how much research is available that focuses solely on the community college setting, as most research available is at the four-year level. Hatch et al. (2018) conducted a study to review several community college student success courses to understand how they work and how they either increase or decrease the acquisition of college success skills, and they found that college success courses gives students a place to practice the art or process of college-going. According to Hatch et al., (2018), from the research they

have reviewed, only three studies are from the two-year college population. O'Gara et al. (2009) and Bers and Younger (2014) also conducted studies on the first year experience in community colleges, concluding that most research is focused on the four-year college.

The results of these existing studies suggest positive experiences for the students who enrolled in the student success courses, as well as their impact on student success. Kimbark et. al. (2017) conducted a study on the effectiveness of a student success course on persistence, retention, academic success, and student engagement, and they found that the student success course is very effective in increasing persistence, retention, and academic achievement, as well as improving student engagement, which leads to increased retention, persistence, and academic achievement. Cho and Mechur Karp (2013) studied early enrollment in the college success course and its impact on academic outcomes, and they found that two-year students who enrolled in a student success course are more likely to earn college credits within the first year as well as persist into the second semester. Research conducted by Hoops and Artrip (2016) studied the student perception of which characteristics makes an effective college student, and they found that time management and motivation are characteristics with the highest ranking, with wellness being third on the list. In addition, Hoops and Artrip (2016) suggest that student success courses should focus more on time management and strategies to promote motivation, rather than on memory strategies. In a study on the advantages of a first-year seminar, conducted by Jaijairam (2016), it was found that mentors who had previously completed the first-year seminar proved to be a positive resource for current students in the class, and completing the class was related to an increase in retention rates. According to Jaijairam (2016), a successful first year seminar covers topics such as credit

hours, grading scales, college resources, study techniques, engagement activities, and community resources. Hatch et al. (2018) found that student success courses focus solely on college skills, which may not be enough to foster the development of skills needed for college. They indicate a need for the student success course to help students form their identity around college-related activities. Research conducted by Jaijairam (2016) indicates that first year seminar courses help students get better grades, become more engaged on campus, increase participation in study groups, and increase engagement from freshman.

Folk (2019) conducted a study on the impact of a First-Year Experience (FYE) program on non-traditional student success at a small, private university that focuses on distance education. This study had mixed findings, but overall, there was no difference found between the success rates of students taking the FYE program when compared to students who did not take the FYE program. One thought as to why a difference was not noticed were that both groups participated in an orientation program prior to the study, so both groups had received the same type of success intervention. A second research question sought to determine whether students perceived that the goals of the program were met. When students were asked their perceptions of the FYE program, they generally felt that the objectives were reached. This study does not align with the existing studies that show a positive connection between a first-year experience course and student success.

Summary

After a review of the literature, it is evident that much research has been conducted to identify the barriers to access and success facing rural community college students. Bright (2018) stated that even though rural is a complex term, with a multidimensional definition, rural students face issues of poverty, isolation, medical issues, and occupational obstacles. This study will add to the research on how successful intervention programs, such as mandatory first-year experience courses, are at keeping at-risk students in school. Valentine et al. (2011) conducted a study on intervention and retention programs and concluded that these programs did have a short-term impact. It is also evident that extensive research has been conducted about first-year experience programs and courses. More research is needed to determine if these programs have a long-term impact on increased retention and persistence, in turn helping students overcome the barriers to access and success. More research also needs to be conducted in the community college setting, as most university research cannot be generalized to community colleges. Further research should focus on identifying which components of the first-year experience course have the most impact on student success, or if it is a combination of all the components that affect student success.

Chapter III

Methods

This study was conducted to determine if a mandatory first-year experience course has an impact on in-semester retention rates and semester-to-semester persistence rates for first-time, full-time AS, AA, and undecided students at Rural Community and Technical College (RCTC) in Southeastern Kentucky. This study examined in-semester retention and semester-to-semester persistence rates for first-time, full-time AS, AA, and undecided students who did not take a mandatory first-year experience course, and compared those rates to the in-semester retention and semester-to-semester persistence rates for students who did take a mandatory first-year experience course.

Research Questions

The research questions for this study were:

To what extent does a mandatory first-year experience course affect in-semester retention rates for first-time, full-time Associate in Science (AS), Associate in Arts (AA), or undecided students who were required to take the mandatory first-year experience course when compared to students who did not take the course?

To what extent does a mandatory first-year experience course affect semester-to-semester persistence rates (fall-to-fall and fall-to-spring) for first-time, full-time Associate in Science (AS), Associate in Arts (AA), or undecided students who were required to take the mandatory first-year experience course when compared to students who did not take the course?

Research Methodology

This study was conducted using a quantitative approach with a quasi-experimental design. A quantitative approach was used so that existing data could be numerically evaluated to compare in-semester retention rates and semester-to-semester persistence rates for students who took a mandatory first-year experience course to those who did not take a mandatory first-year experience course. Data on in-semester retention rates and semester-to-semester persistence rates was gathered for two independent groups – the group that took the mandatory first-year experience course and the group that did not take the mandatory first-year experience course. An independent samples t-test for comparison of means was conducted for each group, for each hypothesis.

Context of the Study

The research setting was at Rural Community and Technical College (RCTC) in Southeastern Kentucky as well as the communities in which these locations serve. RCTC is one of the sixteen community colleges within the Kentucky Community and Technical College System (KCTCS). RCTC consists of three campuses, one branch, and one center covering seven counties. This college is a rural community and technical college located in Southeastern Kentucky. Students come from a variety of backgrounds, with differing socioeconomic levels. Existing data about in-semester retention and semester-to-semester persistence rates was used from students who took a mandatory first-year experience course as well as from students who did not take a mandatory first-year experience course.

Sample

Research participants included students who attend the five RCTC locations as well as those who take classes online through RCTC. These students were first-time, full-time Associate in Science (AS), Associate in Arts (AA), or undecided students who took the mandatory first-year experience course, as well as first-time, full-time Associate in Science (AS), Associate in Arts (AA), or undecided students who did not take the mandatory first-year experience course. Existing data from the Office of Institutional Research was used for this study.

Research Design and Data Collection

This study utilized a quantitative approach to answer the research questions. According to Lichtman (2013), quantitative research "relies on experiments, numbers, and statistics to answer your questions" (p. 4). This research wanted to identify how in-semester retention and semester-to-semester persistence is affected by a mandatory first-year experience course, in turn helping to reduce or eliminate the barriers to access and success that exist for rural community college students.

This study employed a quasi-experimental design. Through this design, existing data was used to compare in-semester retention and semester-to-semester persistence rates for students who took a mandatory first-year experience course to students who did not take a mandatory first-year experience course. This was intended to determine if a mandatory first-year experience course has any effect on retention and persistence, therefor helping to reduce or eliminate the barriers to access and success that exist for rural community college students. In conducting this study, rural community college

students were studied with an open perspective, without foreshadowing the study with what the research suggests are barriers to access and success for rural community college students.

Data collection consisted of using existing data on in-semester retention and semester-to-semester persistence rates of students who took the mandatory first-year experience course and students who did not take the mandatory first-year experience course. The data included students from all five RCTC locations as well as students who took courses online through RCTC. The data was accessed from the Office of Institutional Research.

Data Analysis Procedures

Existing data was analyzed to determine if the mandatory first-year experience course has an impact on in-semester retention and semester-to-semester persistence rates. Only fall data was used due to low enrollment in the spring semesters. A baseline was determined by averaging in-semester retention and semester-to-semester persistence rates of students from Fall 2012, Fall 2013, and Fall 2014. This baseline included first-time, full-time AA, AS, and undecided students who did not take a mandatory first-year experience course. The in-semester retention and semester-to-semester persistence rates of these students was compared to the in-semester retention and semester-to-semester persistence rates of students who took the mandatory first-year experience course, from the Fall 2017, Fall 2018, and Fall 2019 semesters. Data was available for the Fall 2016 semester, but at that point, the first-year experience course was only suggested, not mandatory. The sample size from Fall 2016 was not be large enough to be able to draw any conclusions from the data.

Two independent groups were identified in this study, the first-time, full-time AS, AA, and undecided students who did not take the mandatory first-year experience course, and the first-time, full-time, AS, AA, and undecided students who did take the mandatory first-year experience course. A comparison of means of in-semester retention and semester-to-semester persistence rates for each sample was conducted using the independent samples t-test to see if there was a difference in the mean levels of retention and persistence rates for each group, using an $\alpha = .05$ level of significance.

The null hypothesis for the in-semester retention research question is that there is no significant difference between the in-semester retention rates of first-time, full-time Associate in Science (AS), Associate in Arts (AA), or undecided students that did not take the mandatory first-year experience course compared to the in-semester retention rates of first-time, full-time Associate in Science (AS), Associate in Arts (AA), or undecided students who did take the mandatory first-year experience course. The alternative hypothesis for the in-semester retention research question is that there will be a difference between the two groups.

The null hypothesis for the semester-to-semester persistence research question is that there is no significant difference between the semester-to-semester persistence rates of first-time, full-time Associate in Science (AS), Associate in Arts (AA), or undecided students that did not take the mandatory first-year experience course compared the persistence rates of first-time, full-time Associate in Science (AS), Associate in Arts (AA), or undecided students who did take the mandatory first-year experience course. The alternative hypothesis for the semester-to-semester persistence research question is that there will be a difference between the two groups.

Validity and Reliability

This study was designed to measure the impact of a mandatory first-year experience course on in-semester retention and semester-to-semester persistence at a rural community and technical college. Existing data from the Office of Institutional Research was used to do a comparison of means with an independent samples t-test for each hypothesis. Results of this study are generalizable to other rural community and technical colleges that have similar demographics and student populations but should not be generalized to urban community and technical colleges or universities.

The data utilized in this study were collected from the Office of Institutional Research, and therefore it was official college data. This increases the reliability of the data, given that it was collected and distributed through an official college office. Using existing data from the Office of Institutional Research, a mean was calculated for each group of students for each hypothesis. An independent samples t-test was used to do a comparison of means between each group for each hypothesis. If this study was repeated with the same sample and the same tests, the results would be the same each time, contributing to the reliability of the results.

Ethical Considerations

Since this study was performed with exempt status, ethical issues were minimized. Existing data from the Office of Institutional Research was used during this study. Any identifying information about the participants was removed before the data was provided for this study. The data collected included in-semester retention rates and semester-to-semester persistence rates. The in-semester retention rates looked at whether the students finished the classes they were enrolled in that semester. The semester-to-

semester persistence rates looked at whether the students persisted, or registered, for classes from fall to spring, and from fall to fall semesters.

Age, gender, ethnicity, or health status were not relevant to the results of this study. Therefore, these characteristics were not identified in the data provided by the Office of Institutional Research. Since existing data was used, gaining informed consent was not necessary. Participants were kept confidential so that there were no issues with confidentiality, coercion, or conflict of interest during the study.

Data was collected and presented in a manner that did not include any identifying information. It was aggregated so that only in-semester retention rates and semester-to-semester persistence rates could be analyzed. The data was stored in a password protected database prior to the IR office pulling the data and giving it to me. Once they pulled the data from their system, it was stored on their password protected computer, and then it was given to me, where it was stored on my password protected computer during analysis. Data will be kept for a period of three years, and then will be properly deleted. IRB Proposals and Approval Letters for this study are located in Appendices A through E.

Limitations and Delimitations

This study had limitations and delimitations that should be discussed. The first delimitation is that this study only looked at data from Rural Community and Technical College, one rural community and technical college in Southeastern Kentucky. It should be recognized that this study cannot be generalized to four-year schools or two-year schools in urban areas. It should only be generalized to schools with similar student populations and demographics.

As a limitation, the student population at Rural Community and Technical College is small, so sample sizes for this study were also comparably small. This study only examines fall semesters of data – an average of in-semester retention and semester-to-semester persistence rates for three semesters of data for the group that did not take the mandatory first-year experience course versus an average of three semesters of data for students who did take the mandatory first-year experience course. Spring data was not used since sample sizes were so small the results would not be of significance.

Furthermore, another limitation exists in that even though Rural Community and Technical College instituted a mandatory first-year experience course for all students who were first-time, full-time Associate in Science, Associate in Arts, or undecided majors, beginning in Fall 2017, it was not possible to get one hundred percent of that student group into the mandatory first-year experience course. Inevitably, some are missed through advising and registration issues and are then enrolled the second semester. It is unknown how the mandatory first-year experience course impacts in-semester retention and semester-to-semester persistence rates for students who take it in their second or later semester. Results of this study only examined students taking the course their first semester of enrollment at RCTC.

Other delimitations are that this study looked at different groups of students over different periods of time. Students from Fall 2012, 2013, and 2014 may or may not have the same characteristics as students from Fall 2017, Fall 2018, or Fall 2019 as each class of students comes with its own culture and characteristics. There were also variables such as classes, how they were taught, whether they were online or in-person, or hybrid, which is a combination of both online and in-person, whether students showed up to class

and/or participated in class, and different instructors taken by each group of students that could not be controlled for in this experiment, proving to be both a limitation and delimitation.

Summary

This study expected to determine if a mandatory first-year experience course had an impact on in-semester retention and semester-to-semester persistence rates, therefore helping to reduce or eliminate the barriers faced by rural community college students. This research aimed to determine if a mandatory first-year experience course was a proven strategy to better help rural community college students succeed. A successful study could identify one way, taking a mandatory first year experience course, that rural community college students can overcome the barriers that keep them from obtaining a college education. Furthermore, through this research, the objective was that solid strategies, such as a mandatory first-year experience course, can continue to be implemented at rural community colleges, as well as connections within the community, so that more rural community college students can achieve their goals.

Chapter 4

Results

The purpose of this study was to determine the effect of a mandatory first-year experience course on in-semester retention and semester-to-semester persistence at Rural Community and Technical College in Southeastern Kentucky. This study compared the in-semester retention rates of first-time, full-time, AA, AS, or undecided students in the Fall 2012, Fall 2013, and Fall 2014 semesters to first-time, full-time, AA, AS, or undecided students in the Fall 2017, Fall 2018, and Fall 2019 semesters that enrolled in a required first-year experience class. This study also compared the Fall to Spring and Fall to Fall semester-to-semester persistence rates for the Fall 2012, Fall 2013, and Fall 2014 group when compared to the Fall 2017, Fall 2018, and Fall 2019 group that was required to take the mandatory first-year experience course. There were 247 students in the Fall 2012 semester, 241 in the Fall 2013 semester, and 225 in the Fall 2014 semester, for a total of 713 first-time, full-time AA, AS, and undecided students in the Fall 2012, Fall 2013, and Fall 2014 group of students that were not required to take the mandatory first-year experience course. There were 197 students in the Fall 2017 semester, 214 students in the Fall 2018 semester, and 202 students in the Fall 2019 semester, for a total of 613 first-time, full-time AA, AS, and undecided students in the Fall 2017, Fall 2018, and Fall 2019 semesters. However, there were only 165 students in the Fall 2017 semester that enrolled in the mandatory first-year experience course, 178 students in the Fall 2018 semester that enrolled in the mandatory first-year experience course, and 175 students in the Fall 2019 semester that enrolled in the mandatory first-year experience course, for a total of 518 students enrolled in the mandatory first-year experience course. This study

will only include the 518 students who were enrolled in mandatory first-year experience course for comparison to the group that were not required to enroll in a mandatory first-year experience course. The remaining 95 students who did not enroll in the mandatory first-year experience course will not be included. Table 4.1 shows the distribution of these two samples, as well as the total number of first-time, full-time AA, AS, and undecided students who enrolled in the mandatory first-year experience course.

Table 4.1

Sample

	Total Number of first-time, full-time AA/AS/Undecided Students		*Total Number of first-time, full-time AA/AS/Undecided Students*	*Total Number of first-time, full-time, AA/AS/Undecided Students Enrolled in mandatory first-year experience course*
Fall 2012	247	Fall 2017	197	165
Fall 2013	241	Fall 2018	214	178
Fall 2014	225	Fall 2019	202	175
Totals	713		613	518

Differences in Retention

The first research question focused on the extent a mandatory first-year experience course improved in-semester retention rates for first-time, full-time AA, AS,

and undecided students who were required to take a mandatory first-year experience course when compared to students who did not have to take the mandatory first-year course. An independent samples t-test was performed to compare the in-semester retention rate for students who were not required to take the mandatory first-year experience course to the in-semester retention rate for students who were required to take the mandatory first-year experience course. There were 518 students who participated in the mandatory first-year experience course, and there were 713 students who did not participate in the mandatory first-year experience course. A mean difference of .02 was found between the two groups, with the group not taking the mandatory first-year experience class having the higher retention rate, 98.7%. The students who enrolled in the mandatory first-year experience class had a retention rate of 96.7%. These results are displayed in Table 4.2.

Table 4.2

Mean Retention and Mandatory First-Year Experience Course Participation

Participated in Mandatory First-Year Experience Course	*N*	*Mean*	*Std. Deviation*	*Std. Error Mean*
Retention				
Yes	518	96.7	.18	.008
No	713	98.7	.11	.004

The students who did not take the mandatory first-year experience course were retained at higher levels (M = 98.7, SD = .11) than those who were required to take the mandatory

first-year experience course (M = 96.7, SD = .18), t(806.25) = 2.27, p = .0232. The mean difference is .02, as displayed in Table 4.3. At a .05 level of significance, the test results are significant. There is sufficient evidence to support the alternative hypothesis.

Table 4.3

Retention Independent Samples T-Test

t-test for Comparison of Means

	T	Df	Sig. (2-tailed)	Sample Difference	Std. Error Difference
Retention	2.27	806.25	.0232	.02	.089

Differences in Persistence

Fall to Spring Persistence and Fall to Fall Persistence

The second research question focused on the extent a mandatory first-year experience course improved semester-to-semester persistence rates, specifically fall to spring persistence and fall to fall persistence for AA, AS, and undecided students who did not have to take a mandatory first-year experience course when compared to students who did have to take the mandatory first-year experience course. An independent samples t-test was performed for both fall to spring and fall to fall persistence for both groups. There were 518 students who participated in the mandatory first-year experience course, and there were 713 students who did not participate in the mandatory first-year experience course. For fall to spring persistence, the students who did not take the mandatory first-year experience course had a persistence rate of 80.5%, while the

students who did take the mandatory first-year experience course had a persistence rate of 72.2%, as seen in Table 4.4.

Table 4.4

Mean Fall to Spring Persistence and Mandatory First-Year Experience Course Participation

Participated in Mandatory First-Year Experience Course	*N*	*Mean*	*Std. Deviation*	*Std. Error Mean*
Persistence – Fall to Spring				
Yes	518	72.2	.45	.020
No	713	80.5	.40	.015

For fall to spring persistence, the students who did not take the mandatory first-year experience course persisted at higher rates (M = 80.5, SD = .40) than those who were required to take the mandatory first-year experience course (M = 72.2, SD = .45), $t(1029.72) = 3.37$, p = .0008. The mean difference is .083. This is displayed in table 4.5. At a .05 level of significance, the test results are significant. There is sufficient evidence to support the alternative hypothesis.

Table 4.5

Fall to Spring Independent Samples T-Test

t-test for Comparison of Means					
	T	Df	Sig. (2-tailed)	Sample Difference	Std. Error Difference
Persistence	3.37	1029.72	.0008	.083	.025

For fall to fall persistence, there were 518 students who participated in the mandatory first-year experience course, and there were 713 students who did not participate in the mandatory first-year experience course. The students who did not take the mandatory first-year experience course had a persistence rate of 56.9%, while the students who did take the mandatory first-year experience course had a persistence rate of 49.6%. This is displayed in Table 4.6.

Table 4.6

Mean Fall to Fall Persistence and Mandatory First-Year Experience Course Participation

Participated in Mandatory First-Year Experience Course	*N*	*Mean*	*Std. Deviation*	*Std. Error Mean*
Persistence – Fall to Fall				
Yes	518	49.6	.50	.022
No	713	56.9	.50	.019

For fall to fall persistence, the students who did not take the mandatory first-year experience course persisted at higher rates (M = 56.9, SD = .50) than those who were required to take the mandatory first-year experience course (M = *49.6*, SD = .50), $t(1107.67) = 2.55$, p = .011. The sample difference is .073. This is displayed in Table 4.7. At a .05 level of significance, the test results are significant. There is sufficient evidence to support the alternative hypothesis.

Table 4.7

Fall to Fall Independent Samples T-Test

t-test for Comparison of Means					
	T	Df	Sig. (2-tailed)	Sample Difference	Std. Error Difference
Persistence	2.55	1107.67	.011	.073	.029

Chapter 5

Discussion

The primary goal of this study was to determine if a mandatory first-year experience course had an impact on in-semester retention rates and semester-to-semester persistence rates for first-time, full-time AA, AS, and undecided students at Rural Community and Technical College (RCTC) in Southeastern Kentucky. First-time, full-time AA, AS, and undecided students who did not take a mandatory first-year experience course were compared to first-time, full-time AA, AS, and undecided students who took a mandatory first-year experience course. In-semester retention rates and semester-to-semester persistence rates were compared for the two independent groups. For the semester-to-semester persistence rates, fall to fall and fall to spring persistence rates were compared for the two independent groups. In this chapter, findings of the study will be discussed, as well as implications for future research.

Findings of the Study

This study was a quantitative study with a quasi-experimental design. Existing data was used to compare in-semester retention and semester-to-semester persistence rates for students who took a mandatory first-year experience course to students who did not take a mandatory first-year experience course. The research questions for this study were:

To what extent does a mandatory first-year experience course affect in-semester retention rates for first-time, full-time Associate in Science (AS), Associate in Arts (AA), or undecided students who were required to take the mandatory first-year experience course when compared to students who did not take the course?

To what extent does a mandatory first-year experience course affect semester-to-semester persistence rates (fall-to-fall and fall-to-spring) for first-time, full-time Associate in Science (AS), Associate in Arts (AA), or undecided students who were required to take the mandatory first-year experience course when compared to students who did not take the course?

An independent samples t-test was conducted for each group to do a comparison of means. The data for all three independent samples t-tests indicated that retention and persistence rates for students who took the mandatory first-year experience course were lower than the in-semester retention and semester-to-semester persistence rates for students who were not required to take the mandatory first-year experience course. In-semester retention rates for students who took the mandatory first-year experience course were lower than those who did not, with rates of 96.7% and 98.7%, respectively. Semester-to-semester persistence rates were studied in two different ways, fall to spring persistence and fall to fall persistence. Fall to spring persistence rates for students who took the mandatory first-year experience course were lower than those who did not, with rates of 72.2% and 80.5%, respectively. Fall to fall persistence rates for students who took the mandatory first-year experience course were lower than those who did not, with rates of 49.6% and 56.9%, respectively. In summary, for these groups of students, the mandatory first-year experience course did not positively affect in-semester retention and semester-to-semester persistence, with all means being lower in comparison to the student groups that did not take the mandatory first-year experience course. These results do not coincide with the research cited within this study.

Implications for Future Research

This study adds to the limited research on first-year experience courses in the rural community college setting. The existing research (Bers & Younger, 2014; Cho & Mechur Karp, 2013; Connelly et al., 2017; Hatch et al., 2018; Hoops & Altrip, 2018; Kimbark et al., 2017; & O'Gara et al., 2009) indicates there is a positive correlation between students being enrolled in a first-year experience course and their academic achievement. This same research indicates there is also a positive correlation between students being enrolled in a first-year experience course and persistence into the next semester.

The results of this study do not align with existing research as it was found that on all three independent samples t-tests, students who were required to take a mandatory first-year experience course had lower mean rates in terms of in-semester retention and semester-to-semester persistence than students who were not required to take the mandatory first-year experience course. These results raise many questions for future research. This study only looked at students who were enrolled in the mandatory first-year experience course. This study did not specifically look at whether these students were successful in the course, meaning they had attended the course, submitted work, and received a passing grade. One possibility for further research could be to determine if students who took and actually passed the mandatory first-year experience course had higher levels of in-semester retention and semester-to-semester persistence when compared to students who did not take the mandatory first-year experience course.

This study only looked at in-semester retention rates and semester-to-semester persistence rates. It is likely that the first-year experience course could have a positive

impact on characteristics other than in-semester retention and semester-to-semester persistence rates. For future research, a study could look at the students who were successful in the first-year experience course to see if, long-term, they were more successful in college (graduation rates) than those who did not take the mandatory first-year experience course. Since the mandatory first-year experience course was newly implemented at RCTC, there have not been enough cycles of data to determine whether graduation rates are affected by the implementation of the mandatory first-year experience course. Future research could also look at the affect the first-year experience course has on overall GPAs. For example, do students who are required to take the mandatory first-year experience course maintain a higher GPA than students who do not have to take the course? Other demographics that could be controlled for in further research could be gender, whether students are traditional or non-traditional, and age.

Further research could be conducted to investigate whether students entering college with varying levels of academic preparation might be causing confounding effects within the study. If the students coming in and being required to take the mandatory first-year experience course are at a lower level academically than students who do not have to take the course, this could be shown to cause the lower retention and persistence rates as were found in this study.

This study only looked at first-time, full-time AA, AS, and undecided students enrolling in the mandatory first-year experience course. This was only students taking the mandatory first-year experience course in their first semester. This study had a limitation in that even though RCTC instituted a mandatory first-year experience course for first-time, full-time AA, AS, and undecided students, not all students get enrolled in

the course their first semester. Of the 613 total first-time, full-time, AA, AS, and undecided students in the Fall 2017, Fall 2018, and Fall 2019 semesters, only 518 were enrolled in the mandatory first-year experience course. In this study, 95 students were left out of the analyses due to not enrolling in the mandatory course. These students will have to take the course their next semester of enrollment, or sometime prior to graduating. This could lead to more research as a new study could be conducted to determine if students taking the mandatory course in a semester other than their first semester of college has an effect on in-semester retention and semester-to-semester persistence rates.

This study looked at two different groups of students over different periods of time. The students who did not have to take the mandatory first-year experience course were from the Fall 2012, Fall 2013, and Fall 2014 semesters, while the students who did have to take the mandatory first-year experience course were from Fall 2017, Fall 2018, and Fall 2019 semesters. These two groups of students could have had very different characteristics, as well as different classes, how the classes were taught, whether the classes were online or in-person, and different instructors, which could not be controlled for in this study. In order to control for all of these variables, further research could investigate students from the same semesters, where half of them could be assigned to take the mandatory first-year experience and half of them not assigned to take the mandatory first-year experience. These students could be tracked to determine which group exhibited the most successful traits as they moved from semester to semester to graduation.

The research shows that students drop out for reasons that are largely non-academic. Further research could be conducted to look at the content of the mandatory first-year experience course to determine which, if any, of the competencies, focus on helping with these non-academic barriers. If the mandatory first-year experience course is not doing enough to focus on students with non-academic barriers, this could be a place for improvement within the course. A new study could then focus on whether or not in-semester retention and semester-to-semester persistence rates are affected once there is built-in support for the non-academic barriers.

Strengths and Weaknesses

This study will add to the research on the impact of a mandatory first-year experience course on the in-semester retention and semester-to-semester persistence rates at rural community and technical colleges. This study was conducted at one rural community and technical college in Southeastern Kentucky, providing some quantitative analysis and evidence of results for the mandatory first-year experience course implemented there in Fall 2017. This study can also lead to further research on the mandatory first-year experience course, paving the way for further analysis of variables that were not controlled for in this current study. This study can also be used to help to strengthen the course and its impact on in-semester retention and semester-to-semester persistence rates at RCTC by looking for ways in which there can be built-in support for the non-academic barriers.

Weaknesses of this study can also provide more opportunities for investigating the effects of the mandatory first-year experience course on not only in-semester retention and semester-to-semester persistence rates, but also other factors such as overall

college success and graduation rates. This study only examined students who were enrolled in the mandatory first-year experience course. Even though the course is mandatory, it is difficult to get 100% of the students who should take the course enrolled in the class. Therefore, the students who do not get enrolled their first semester must take it the next semester, or sometime before they graduate. This could lead to an investigation of whether taking it in your second or later semester increases the in-semester retention and semester-to-semester retention rates for those students. This study also looked at students over two different time periods, and this likely means there were differences in the two samples that could not be controlled for in this study. A new study could be designed that would take two samples from the same semester, where half would take the mandatory first-year experience course, and half would not, and then follow these two groups of students to see the differences in the two groups. This study only examined first-time, full-time, AA, AS, and undecided students who enrolled in the course. This leaves an opportunity for a different sample of students to be investigated. Students who are part-time could be studied, as well as students who enroll in and are successful in the course.

Conclusion

The current study examined a mandatory first-year experience course and its effect on in-semester retention rates and semester-to-semester persistence rates. Existing data was used to look at a group of students who did not have to take the mandatory first-year experience course in comparison to a group of students who were required to take the mandatory first-year experience course. Two hypotheses were tested, investigating in-

semester retention rates and semester-to-semester persistence rates, and a significant difference was found between the two groups for each hypothesis.

The results of this study indicate that students who were required to take a mandatory first-year experience course have lower in-semester retention and semester-to-semester persistence rates than the students who did not take the mandatory first-year experience course. Although these results are not aligned with the existing research on first-year experience courses, this study does add to the existing research on mandatory first-year experience courses at rural community and technical colleges. First-year experience courses have been proven to provide value to a student's college career, so while this study did not show an improvement for in-semester retention and semester-to-semester persistence rates for the specific groups of students studied, it provides a good foundation for further research within the institution to produce results that are more aligned to current research.

First-year experience courses have recently become increasingly popular among colleges and universities as one way student success can be increased, with a focus on retention, persistence, and academic achievement. Taking a first-year experience course is now a graduation requirement within the Kentucky Community and Technical College (KCTCS) system. This mandatory first-year experience course is a new endeavor at RCTC. There has always been first year experience or intro to college-type courses, but this is the first time taking one of these courses has been mandatory. As more and more first-year experience courses are offered, more data will become available and more research will be conducted on how these courses can be best utilized to help students make the successful transition from high school to college to career.

This current study and any future research should provide an opportunity for mandatory first-year experience courses to produce the successful results that are expected when this type of intervention is required. RCTC has always been highly responsive to students' needs, and this is just one more way in which RCTC is dedicated to providing opportunities for educational attainment as well as giving back to the communities served by the college.

REFERENCES

Ames, B. D., Brosi, W. A., & Damiano-Teixeira, K. M. (2006). "I'm just glad my three jobs could be during the day": Women and work in a rural community. *Family Relations*, *55*(1), 119-131.

Andrews, D. & Osman, R. (2015). Redress for academic success: Possible 'lessons' for university support programmes from a high school literacy and learning intervention. *South African Journal of Higher Education, 29*(1), 354-372.

Ayers, D. F. (2010). Putting the community back into the college. *Academe*, *96*(3), 9-11.

Barcus, H. R., & Brunn, S.D. (2010). Place elasticity: Exploring a new conceptualization of mobility and place attachment in rural America. *Humaneography, 92*(4), 281-295.

Bers, T., & Younger, D. (2014). The first-year experience in community colleges. *New Directions for Institutional Research, 2013*(160), 77–93. https://doi-org.libproxy.eku.edu/10.1002/ir.2002

Bischoff, R. (2006). A first-generation director. *Journal of College Admission,* 193 (8-9).

Blanchard, R.A., Casados, F., & Sheski, H. (2009). All things to all people: Challenges and innovations in a rural community college. *The Journal of Continuing Higher Education, 57*, 22-28.

Bright, D. J. (2018). The rural gap: The need for exploration and intervention. *Journal Of School Counseling, 16*(21), 2-27. Retrieved July 31, 2020, from http://jsc.montana.edu/articles/v16n21.pdf

Brock, T. (2010). Young adults and higher education: Barriers and breakthroughs to success. *The Future of Children, 20*(1), 109-132.

Byrd, K. L., & MacDonald, G. (2005). Defining college readiness from the inside out: First-generation college student perspectives. *Community College Review, 3*(1), 22-37.

Cho, S., & Mechur Karp, M. (2013). Student success courses in the community college: Early enrollment and educational outcomes. *Community College Review*, 4*1*(1), 86-103.

Coley, R. J., & Educational Testing Service, P. N. P. I. C. (2000). The American Community College Turns 100: A Look at Its Students, Programs, and Prospects. Policy Information Report.

Comings, J. P. (2007). Persistence: Helping adult education students reach their goals. National Center for the Study of Adult Learning and Literacy. Retrieved from http://www.ncsall.net/fileadmin/resources/ann_rev/comings-02.pdf.

Connolly, S., Flynn, E., Jemmott, J. & Oestreicher, E. (2017) First year experience for a at-risk college students. *The Free Library*. Retrieved July 31, 2020, from https://www.thefreelibrary.com/First year experience for at-risk college students.-a0487602746

Eddy, P. (2007). Faculty development in rural community colleges. *New Directions for Community Colleges, 137,* 65-76.

Eitel, S. J., & Martin, J. (2009). First-generation female college students' financial literacy: Real and perceived barriers to degree completion. *College Student Journal*, *43*(2), 616-630.

Ellis-O'Quinn, A. (2012). An ex post facto study of first-year student orientation as an indicator of student success at a community college. *Inquiry*, *17*(1), 51-57.

Fleming, M. J., & Grace, D. M. (2014). Increasing participation of rural and regional students in higher education. *Journal of Higher Education Policy and Management*, *36*(5), 483-495.

Folk, K. (2019). Evaluating the impact of a first-year experience on student success at a distance learning university. *Online Journal of Distance Learning Administration, 22*(4), 1–16. Retrieved July 31, 2020, from https://www.westga.edu/~distance/ojdla/winter224/folk224.html

Fowler, P. R., & Boylan, H. R. (2010). Increasing student success and retention: A multidimensional approach. *Journal of Developmental Education*, *34*(2), 2-4.

Freeman, G. G., & Randolph, I. (2013). Leadership strategies for maintaining success in rural school district. *International Journal for Leadership in Learning*, *1*(1).

Gagnon, D. J., & Mattingly, M. J. (2016). Advanced placement and rural schools: Access, success, and exploring alternatives. *Journal of Advanced Academics, 27*(4), 266–284. http://dx.doi.org/10.1177/1932202X16656390

Garza, H., & Eller, R. D. (1998). The role of rural community colleges in expanding access and economic development. *New Directions for Community Colleges*, *103*, 31-41.

Genco, J. T. (2007). Adult re-entry students: Experiences preceding entry into a rural Appalachian community college. *Inquiry*, *12*(1), 47-61.

Griffin, D, & Galassi, J.P. (2010). Parent perceptions of barriers to academic success in rural middle school. *Professional School Counseling, 14*(1), 1-19.

Grimard, A., & Maddaus, J. (2004). Overcoming obstacles to preparing for college: Perspectives from a rural upward bound program. *Rural Educator*, *25*(3), 30-37.

Hatch, D. K., Mardock-Uman, N., Garcia, C. E., & Johnson, M. (2018). Best laid plans: How community college student success courses work. *Community College Review*, *46*(2), 115-144.

Hendrickson, K. A. (2012). Student resistance to schooling: Disconnections with education in rural Appalachia. *High School Journal*, *95*(4), 37-49.

Herzog, M. R., & Pittman, R. B. (1995). Home, family, and community: Ingredients in the rural education equation. *Phi Delta Kappan*, *77,* 113-118.

Hlinka, K. R. (2017). Tailoring retention theories to meet the needs of rural Appalachian community college students. *Community College Review*, *45*(2), 144- 164.

Hlinka, K. R., Mobelini, D. C., & Giltner, T. (2015). Tensions impacting student success in a rural community college. *Journal of Research in Rural Education*, *30*(5), 1-6.

Hoffman, J. A., Anderson-Butcher, D., Fuller, M., & Bates, S. (2017). The school experiences of rural youths: A study in Appalachian Ohio. *Children & Schools, 39*(3), 147–155. https://doi.org/10.1093/cs/cdx010

Hoops, L. D., & Artrip, A. (2016). College student success course takers' perceptions of college student effectiveness. *Learning Assistance Review*, *21*(2), 55-67.

Isserlis, J. (2008). Adults in programs for the "academically underprepared". New Directions for Adult & Continuing Education, 2008(120), 19-26.

Jaijairam, P. (2016). First-Year Seminar (FYS)--The Advantages That This Course Offers. *Journal of Education and Learning*, *5*(2), 15–23.

Kimbark, K., Peters, M. L., & Richardson, T. (2017). Effectiveness of the student success course on persistence, retention, academic achievement, and student engagement. *Community College Journal of Research and Practice*, *41*(2), 124-138. Retrieved August 17, 2020, from https://www.researchgate.net/publication/301696215_Effectiveness_of_the_Student_Success_Course_on_Persistence_Retention_Academic_Achievement_and_Student_Engagement/stats

Lichtman, M. (2013). *Qualitative research in education: A user's guide.* Los Angeles: SAGE Publications, Inc.

Moore, R. (2009). Ready or not? *New Directions for Community Colleges, 145,* 59-66.

Morton, T., Ramirez, N., Meece, J., Demetriou, C., & Panter, A. (2018). Perceived barriers, anxieties, and fears in prospective college students from rural high schools. *The High School Journal, 101*(3), 155-176. doi:10.2307/90024241

O'Gara, L., Karp, M. M., & Hughes, K. L. (2009). An Exploratory Study of Student Perspectives. *Community College Review*, *36*(3), 195–218. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=35897461&site=ehost-live

Petty, T. (2014). Motivating first-generation students to academic success and college completion. *College Student Journal*, *48*(2), 257-264.

Pratt, I. S., Harwood, H. B., Cavazos, J. T., & Ditzfeld, C. P. (2017). Should I stay or should I go? Retention in first-generation college students. *Journal of College*

Student Retention: Research, Theory & Practice, 21(1), 105–118. https://doi.org/10.1177/1521025117690868

Schmid, C., & Abell, P. (2003). Demographic risk factors, study patterns, and campus involvement as related to student success among Guilford Technical Community College Students. *Community College Review*, *31*(1), 1.

Schultz, P. F. (2004). Upon entering college: First semester experiences of first-generation rural students from agricultural families. *Rural Educator*, *26*(1), 48-51.

Scott, S., Miller, M. T., & Morris, A. A. (2016). Rural community college student perceptions of barriers to college enrollment. *Academic Leadership Journal in Student Research*, *4.*

Smith, Ashley A. (2017). Bumps in the road for rural students. *Inside Higher Ed.* Retrieved from https://www.insidehighered.com/news/2017/10/04/nonacademic- barriers-highlight-challenges-facing-rural-colleges%C2%A0

Stewart, S., Lim, D., & Kim, J. (2015). Factors influencing college persistence for first-time students. *Journal of Developmental Education, 38*(3), 12-20. Retrieved July 31, 2020, from www.jstor.org/stable/24614019

Student Achievement Disclosure Information. (2020, June 30). Retrieved August 19, 2020, from https://hazard.kctcs.edu/affording-college/student-achievement-disclosure-information/index.aspx

Terry, M. (2006). Making a difference in learners' lives: Results of a study based on adult literacy programs. *Adult Basic Education*, 16(1), 3-19.

Tinto, V. (1975). Dropout From Higher Education: A Theoretical Synthesis of Recent Research. Review of Educational Research, 45(1), 89.

Tinto, V., Cullen, J., & Columbia Univ., N. Y. N. T. C. (1973). *Dropout in Higher Education: A Review and Theoretical Synthesis of Recent Research*.

Valadez, J. R. (2000). Searching for a path out of poverty: Exploring the achievement ideology of a rural community college. *Adult Education Quarterly*, *50*(3), 212.

Valentine, J., Hirschy, A., Bremer, C., Novillo, W., Castellano, M., & Banister, A. (2011). Keeping at-risk students in school: A systematic review of college retention programs. *Educational Evaluation and Policy Analysis*, *33*(2), 214-234.

Volokhov, R. (2014). Differences in study skills knowledge between traditional and nontraditional students. *Aurco Journal, 20,* 1-18.

Waters-Bailey, S., McGraw, M. S., & Barr, J. (2019). Serving the whole student: Addressing nonacademic barriers facing rural community college students. *New Directions for Community Colleges*, 2019(187), 83–93.

Wettersten, K. B., Guilmino, A., Herrick, C. G., Hunter, P. J., Kim, G. Y., Jagow, D., & McCormick, J. (2005). Predicting educational and vocational attitudes among rural high school students. *Journal of Counseling Psychology, 52*(4), 658-663. doi:10.1037/0022-0167.52.4.658.

APPENDICES

Appendix A: KCTCS - HCTC IRB Proposal

Print Form

HSRB Exempt Form 05

Human Subjects

Project Director/ Principal Investigator: Amanda Spencer-Barnes

Faculty Staff ☒ Student ☐ College: Hazard Community and Technical Co

Address: One Community College Drive, Hazard, KY 41701

Office Phone: 606-487-3530 Email: amanda.spencer-barnes@kctcs.edu

Faculty Sponsor (Student/Class Project): _____

Department: _____

Address: _____

Office Phone: _____ Email: _____

FOR SUBMISSION DEADLINES AND COMMITTEE MEETING DATES CALL 859-256-3320
(Committee meetings scheduled once a semester as necessary: no meetings in the summer.)

1. **Source of Support:** ☐ *Sponsored Research ☐ *University Funded Research ☒ *Unfunded Research Sponsor: _____

2. **Type of Project:** *(Check all that apply)* ☒ Original Submission ☐ Resubmission ☐ Student Project ☐ Class Project ☐ New ☐ Continuation ☐ Renewal

*A class project requires HSRB review if it is a research project. Research is defined as "any systematic gathering and analysis of information, usually made under conditions determined by the investigator, that aims to test a hypothesis, to discover some unknown principle, or effect, or to re-examine some known or suggested principle." **(Human Subjects Review Board: Handbook for Investigators, Part III, C.1)***

3. Research to be conducted in the U.S.? Yes ☒ No ☐

If *No*, specify country or territory: _____

4. Has this study been previously reviewed by another HSRB? Yes ☐ No ☒

If *Yes*, please identify: _____

5. **PROJECT TITLE** BARRIERS TO ACCESS AND SUCCESS FOR RURAL COMMUNIT

6. **DESCRIPTION OF PROTOCOL:** Attach, or provide below, a complete, detailed description of the research protocol including explanation of why the protocol should be regarded as exempt. It should be understandable to the non-specialist and not longer than three pages.

Certification of Exemption from Federal Regulations Regarding the Protection of Human Research Subjects: Check all applicable conditions. Exemptions may not be claimed for research involving prisoners, fetuses, pregnant women, the mentally retarded or disabled, or human in vitro fertilization.

7. I certify that the project identified above, in which the only involvement of human subjects will be in one or more of the categories checked below, is exempt from federal regulations regarding the protection more of the categories checked below, is exempt from federal regulations regarding the protection of human research subjects and does not require full review by the Human Subjects Review Board.**

(1) Research conducted in established or commonly accepted educational settings, involving normal educational practices, such as
(i) research on regular or special education instructional strategies, or
(ii) research on the effectiveness of or the comparison among instructional techniques, curricula, or classroom management methods.

(2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior, ***UNLESS***
(i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; ***AND***,
(ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation
*Note: When a study uses subjects who are **MINORS**, category (2) only applies as follows: Studies using educational tests involving minors as subjects are exempt. Studies using survey or interview procedures with minors as subjects are **NOT** exempt. Studies using observations of public behavior involving minors are **NOT** exempt unless the investigator does not participate in the activities being observed.*

(3) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, or observation of public behavior that is not exempt under (2), if:
(i) the human subjects are elected or appointed public officials or candidates for public office; or
(ii) federal statute(s) require(s) without exception that the confidentiality of the personally identifiable information will be maintained throughout the research and thereafter.

(4) Research, involving the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens, if these sources are publicly available or if the information is recorded by the investigator in such a manner that subjects cannot be identified directly or through identifiers linked to the subjects. ***

(5) Research and demonstration projects which are conducted by or subject to the approval of federal department or agency heads, and which are designed to study, evaluate, or otherwise examine:
(i) public benefit or service programs;
(ii) procedures for obtaining benefits or services under those programs;
(iii) possible changes in or alternatives to those programs or procedures; or
(iv) possible changes in methods or levels of payment for benefits or services under those programs.

(6) Taste and food quality evaluation and consumer acceptance studies,
(i) if wholesome food without additives are consumed; or
(ii) if a food is consumed that contains a food ingredient at or below the level and for a use found to be safe, or agricultural chemical or environmental contaminant at or below the level found to be safe, by the Food and Drug Administration or approved by the Environmental Protection Agency or the Food Safety and Inspection Service of the U.S. Department of Agriculture.

I certify that the project will not be changed to increase the risk, exceed or change the exempt condition(s) without filing an additional certification or application for approval by the Human Subjects Review Board. I understand that responsibility for protecting human subjects is shared by the entire research team.

Signature: Amanda Spencer-Barnes 11-16-18
Project Director/ Principal Investigator Date

Signature: [signature] 11-16-18
KCTCS College President/CEO Date

Concurrence with claim of exemption

Signature:
Board Chair/ Authorized Reviewer Date

* The original Certification of Exemption is to be forwarded to HSRB Chair, KCTCS System Office, 300 N. Main St., Versailles, KY 40383 with copies of the proposal routed for review and approval. This project may be subject to review and confirmation of its exempt nature by the KCTCS Human Subjects Review Board and/or the sponsoring agency.

** If the Project Director has any questions about the Exempt status of the project, the appropriate Human Subjects Review Board Chair should be contacted.

*** If the records involved are those of KCTCS students, the project is not exempt and must be reviewed by the HSRB. Such research must conform with the Family Education Rights and Privacy Act of 1974 also known as the Buckley Amendment.

Appendix B: KCTCS - HCTC Approval Letter

300 North Main Street
Versailles, KY 40383
Telephone: (859) 256-3100
Website: kctcs.edu

November 30, 2018

Amanda Spencer-Barnes
One Community College Drive
Hazard, KY 41701

RE: BARRIERS TO ACCESS AND SUCCESS FOR RURAL COMMUNITY COLLEGE STUDENTS AT HAZARD COMMUNITY AND TECHNICAL COLLEGE: UNDERSTANDING THE EFFECT OF A MANDATORY FIRST-YEAR EXPERIENCE COURSE ON RETENTION AND PRESITENCE

Dear Amanda:

After careful consideration of your application to the KCTCS Human Subjects Review Board, I have determined that you are eligible for exemption from federal regulations regarding the protection of human subjects based on your research using a procedure that meets the exempt review criteria section 7 (2).

Thank you for your cooperation in meeting the federal requirements for conducting research that utilizes human subjects. We appreciate your notification to this board and we will keep your information on file.

Sincerely,

Kris Williams, Ph.D.
KCTCS Chancellor

Pamela M. Duncan
Associate General Counsel
Chair, KCTCS Human Subjects Review Board

cc: Alicia Crouch
Vice Chancellor of Research & Policy Analysis

Appendix C: HCTC IRB Approval Letter

One Community College Drive
Hazard, KY 41701
Telephone: (606) 436-5721
or 1-800-246-7521
Fax: (606) 439-2988
www.hazard.kctcs.edu

Hazard Campus (606) 436-5721
Technical Campus: (606) 436-5721
Lees College Campus: (606) 666-7521
Knott County Branch: (606) 785-4114
Leslie County Center: (606) 672-6800
Kentucky School of Craft: (606) 785-1055
Kentucky School of Bluegrass & Traditional Music: (606) 672-6800

December 12, 2018

Amanda Spencer-Barnes
Professor
Hazard Community and Technical College
Lees College Campus
601 Jefferson Avenue
Jackson, KY 41339

Dear Ms. Spencer-Barnes:

I approve your request to utilize Hazard Community and Technical College as your research site for your dissertation entitled, "Barriers to Access and Success for Rural Community College Students at Hazard Community and Technical College: Understanding the Effect of a Mandatory First-Year Experience Course on Retention and Persistence." This includes any new data collection or access to existing data that may be required, including student, program, grade or exam data. Best of luck on the final stages of your doctoral program.

Sincerely,

Dr. Jennifer Lindon
President/CEO
Hazard Community and Technical College

Appendix D: Eastern Kentucky University IRB Proposal

Institutional Review Board

Application for Exemption Certification

Instructions:

1. All applications for IRB review must be submitted online by the Principal Investigator.
2. After completing this application form and all required attachments, access the online submission portal at eku.inforeadv4.com. Choose Application for Exemption Certification from the list of available opportunities and click the Apply button on the right. If needed, you can filter the category column by Institutional Review Board (Human Subjects Research).
3. If you are a current EKU employee or student, click the option to log in as an EKU user. Your user name and password are the same as what you use to log in to EKU's network. Your user name is not your email address.
4. Complete the basic information in the online application and upload this application form and all required attachments in their original file formats (i.e., Microsoft Word documents). Please do not save your files as PDFs.
5. Upon receipt of a new online application, an IRB administrator will review the submission for completeness and return incomplete applications for updates prior to processing.
6. Once an application is accepted by an IRB administrator, it will be assigned to the faculty advisor (if the principal investigator is a student) and the department chair for approvals prior to being reviewed by the IRB.
7. If the IRB reviewers have questions or request updates to the application materials, the principal investigator will be notified by email and asked to resubmit the application online.
8. Once the IRB has approved the application, the principal investigator will be notified by email.

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1. **Title of Project:**
   Barriers to Access and Success for Rural Community College Students at Rural Community and Technical College: Understanding the Effect of a Mandatory First-Year Experience Course on Retention and Persistence

2. **Principal Investigator:**
   Principal Investigator Name: Amanda Spencer-Barnes
   Department: Educational Leadership and Policy Studies

3. **Faculty Advisor, Committee Members, and Degree Program** (required if PI is an EKU student):

   Primary Faculty Advisor: Dr. Charles Hausman

Committee Members (required for theses, dissertations, scholarly projects, field experience, or other studies guided by an academic committee):

Dr. Deborah West

Dr. Ann Burns

_____

_____

_____

Degree Program: EdD in Educational Leadership and Policy Studies

4. **Other Investigators:** Identify all other investigators assisting in the study. Add lines if needed.
   Name: _____ Authorized to obtain consent? ☐Yes ☐No
   Responsibility in Project: _____

   Name: _____ Authorized to obtain consent? ☐Yes ☐No
   Responsibility in Project: _____

   Name: _____ Authorized to obtain consent? ☐Yes ☐No
   Responsibility in Project: _____

5. **Estimated Duration of Research Project:** upon IRB approval through May 2021
   Note that research may not begin until IRB approval has been granted.

6. **Funding Support:** Is the research study funded by an external or internal grant or contract? ☐Yes ☒No
   Funding Agency: _____

   Copy of funding application narrative attached? ☐Yes (required if study is funded)

7. **Interaction with Research Participants:** Will data be collected from individuals through intervention or interaction with the participants (any form of communication: electronic, paper, or in person)? ☐Yes ☒No

8. **Identifiable Private Information:** Will identifiable private information be collected from existing records (i.e., medical records, assessment data)? ☐Yes ☒No

9. **Research Activities:** Does the study involve any of the following*? Check all that apply.
   a) ☐Prisoners, fetuses, pregnant women (other than coincidental), or human in vitro fertilization;

b) ☐The review of medical or other records if the information is recorded in such a way that participants can be identified directly or through identifiers linked to the participants;
c) ☐Survey or interview techniques which include minors as participants;
d) ☐The observation of minors if the researcher participates in the activities being observed;
e) ☐Techniques which expose participants to discomfort or harassment beyond levels encountered in daily life; or
f) ☐The deception of research participants.

**Note: If the study involves any of the above, the study is not eligible for exemption.*

10. Exemption Categories: Research activities may classified as exempt when the ONLY involvement of human subjects falls within one or more of the categories below. If any activities do not fit in the categories below, the project is not eligible for exemption. Check one or more of the categories below that apply to the research project:

1) ☐ Research conducted in established or commonly accepted educational settings, involving normal educational practices, such as (i) research on regular and special educational instructional strategies, or (ii) research on the effectiveness of or the comparison among instructional techniques, curricula, or classroom management methods.

2) ☐ Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: (i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation. **IMPORTANT: Subpart D amends this exemption, in part: If the subjects are children, research involving interview or survey procedures and research involving observations of public behavior in which the researcher(s) participate in the activities being observed are not exempt. However, research involving the use of educational tests and research involving observations of public behavior in which the researcher(s) do not participate in the activities being observed are exempt. [34 CFR 97.401(b)].**

3) ☐ Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior that is not exempt under category (b) of this section, if: the human subjects are elected or appointed public officials or candidates for public office; or (ii) federal statute(s) require(s) without exception that the confidentiality of the personally identifiable information will be maintained throughout the research and thereafter.

4)☒ Research involving the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens, if these sources are publicly available or if the information is recorded by the investigator in such a manner that subjects cannot be identified, directly or through identifiers linked to the subjects. Note that, according to the Office for Human Research Protections (OHRP), "to qualify for this

exemption the data, documents, records, or specimens must be in existence before the project begins. The principle behind this policy is that the rights of individuals should be respected; subjects must consent to participation in research."

5)☐ Research and demonstration projects which are conducted by or subject to the approval of department or agency heads, and which are designed to study, evaluate, or otherwise examine: (i) public benefit or service programs; (ii) procedures for obtaining benefits or services under those programs; (iii) possible changes in or alternatives to those programs or procedures; or (iv) possible changes in methods or levels of payment for benefits or services under those programs.

6)☐ Taste and food quality evaluation and consumer acceptance studies, (i) if wholesome foods without additives are consumed or (ii) if a food is consumed that contains a food ingredient at or below the level and for a use found to be safe, or agricultural chemical or environmental contaminant at or below the level found to be safe, by the Food and Drug Administration or approved by the Environmental Protection Agency or the Food Safety and Inspection Service of the U.S. Department of Agriculture.

11. Background:

a. Provide an introduction and background information for the study, including a brief discussion of past research findings leading to this study. Cite literature that forms the scientific basis for the research.

Introduction

Students who attend rural community colleges are often impacted by barriers that many of their urban counterparts do not face. These barriers can keep rural community college students from ever starting their first semester. Students who do get started at the community college have decreased chances of ever finishing their first semester, therefore they never walk across the stage to complete their program or degree. According to Coley (2000), there are seven demographic factors that put students at risk of not earning a degree or completing a program. These are "delayed entry, part-time enrollment, full-time work, financial independence, dependents, single parenthood, and community college attendance without a high school diploma" (p. 17). There are many other issues, both academic and non-academic, that students face when it comes to access and success at rural community colleges. Some of these include customs and attitudes that do not promote education, being first-generation college students, lack of parental

knowledge about higher education, poor attendance due to external factors, being underprepared for college-level work, strong family ties, lack of transportation, lack of childcare, lack of work ethic, maturity, and soft skills, poverty or financial strain, and poor economic conditions in the community.

Scott et al. (2016) concluded that "There are several types of students who attend community colleges, many classified as at-risk, including low income, first generation, non-traditional, and students with disabilities" (p. 3). These defining characteristics can be added to the list of barriers faced by students attending rural community colleges. Morton et al. (2018) found that students' perceptions of their rural community were directly related to its size and closeness, with thoughts that there was very limited ability to participate in educational, social, and economic opportunities. When asked about college access, the students reported that academic achievement, financial ability, and social issues were all barriers to access. Large geographical distances, combined with poverty and lack or transportation, can prove to be very detrimental to student access and success. In addition to geographical distance as a barrier to access, rural schools have a lack of prepared students, teaching restrictions, and other logistical challenges that keep them from offering AP courses (Gagnon and Mattingly, 2016). This lack of access to AP courses while in high school only serves to add to the number of students who enter postsecondary institutions without the advantage of being able to earn that college credit while in high school. In a study conducted by Scott et. al. (2016), the main barriers identified were financial, access to home computer or internet, and academic performance (low GPA). Pratt et al. (2017) also discussed financial concerns as an issue to student success, citing that first generation college students who were concerned about

finances and paying for college would have to work while in school, therefore decreasing the chance of them being involved on campus and connected to their peers. Smith (2017) reported that expenses such as food, transportation, housing, health care, and child care insecurities and lack of access to broadband internet were among the many concerns discussed by community college leaders at a recent conference she attended. These risk factors contribute to a lack of academic success for rural community college students, especially when students are likely to have not just one, but several of these barriers to overcome. Stewart et al. (2015) noted that it is critical for students to resolve academic and transition issues early in the first year to help underprepared students have a successful academic career.

Students who can resolve these issues within their first year have a greater chance of being successful with their rural community college experience. The first-year course provides an avenue during the first semester for students to transition into college and prepare to grow within their higher education experience (Bers & Younger, 2014). According to the research (Bers & Younger, 2014; Cho & Mechur Karp, 2013; Connolly et al., 2017; Hatch et al., 2018; Hoops & Artrip, 2018; Kimbark et al., 2017; and O'Gara et al., 2009), student success courses have had a positive impact on student success, retention, and persistence. Student success courses (SSC) and First-Year Experience courses (FYE) teach skills such as study skills, time management, career exploration, transfer options, campus and technology resources, personal finance, and strategies for achieving academic success. These courses are designed to help students with the transition from high school to college to career. In their study, Connolly et al. (2017) focused on at-risk students, with their main focus on promoting social engagement with

other FYE classmates, connecting FYE students with their instructors, making connections between students and their advisors, and encouraging effective learning strategies, as well as encouraging campus participation, and teaching skills such as time management, financial and personal health, and self-care. Results of this study indicated an increase in GPA and academic success during their first semester (Connolly et al., 2017). Kimbark et al. (2017) focused on social skills such as faculty/peer engagement and study skills such as note taking, time management, and decision making. Their findings indicated "a statistically significant relationship was found to exist between participation in the SSC and persistence, retention, and academic achievement" (p. 11).

Background of the Problem

Students who attend rural community colleges have unique challenges that hinder their academic success, therefore decreasing the chances they will ever graduate with their two-year degree. For students that entered Rural Community and Technical College (RCTC) in Fall 2014, the graduation rate for these students graduating before or during Fall 2017 was 30% ("Student Disclosure", 2020). According to Scott et al. (2016), students at rural community colleges carry with them unique challenges, including the availability of resources and the preparation received in high school. Rural community colleges provide an opportunity for students who might have previously thought that college was not an option. Garza and Eller (1998) noted that there are specific populations that might have thought of college as a foreign idea. These populations include students who did not finish high school or received a GED, students who did not excel in high school, and non-traditional students who have been out of school for a while. The population also includes adult learners who may need technical training and

skills for a growing workforce. An important idea to note is that community college is not just for at-risk populations, but rather an affordable option for all students while allowing them to stay close to home.

Reducing the barriers to access and success for at-risk populations is extremely important. Rural community colleges must find ways to develop programs and intervention strategies that prove successful for rural community college students. Students drop out of college, with the majority leaving college for non-academic issues. Instructors feel these non-academic reasons for dropping out of classes and school overall are out of their control. Pratt et al. (2017) found that most interventions for first generation college students happen once they arrive on campus, since college administrators often have little influence on changes at the K-12 level. This study will focus on how a mandatory first-year experience course affects these barriers through teaching students strategies to better overcome these barriers, therefore improving in-semester retention and semester-to-semester persistence for students attending rural community colleges. Through this research, it is anticipated that a mandatory first-year experience course can be shown to help students overcome some of these barriers and be successful. If students who are taking a mandatory first-year experience course have better in-semester retention and semester-to-semester persistence rates than students who did not have to take the mandatory FYE 105 course, then through improved in-semester retention rates and semester-to-semester persistence rates, it can be said that a mandatory FYE 105 course has had a positive impact on helping to reduce the barriers. Furthermore, this research will serve to help educators understand the barriers that exist as well as ways in which everyone at community colleges, faculty, staff, and

administrators, can help students be successful. After all, student success should always be the number one priority in institutions of higher learning.

Purpose of the Study

This study is designed to investigate the effect of a mandatory first-year experience course on in-semester retention and semester-to-semester persistence rates, specifically for rural community and technical college students at Rural Community and Technical College (RCTC) in Southeastern Kentucky. It is important for everyone in higher education to understand the barriers that impact access and success for rural community college students, as well as to develop and implement successful intervention programs that can help increase retention and persistence rates, therefore increasing the number of students that complete degrees and programs. Students at RCTC face many barriers to access and success. If in-semester retention and semester-to-semester persistence rates can be improved through the implementation of a mandatory first-year experience course, then it can be said that the mandatory first-year experience course has also had an impact on the barriers to access and success. If we can reduce or eliminate the barriers to access and success through strategies taught in FYE 105, students will have a better chance of completing their program or graduating with their degree.

Research Questions

3. To what extent does a mandatory first-year experience course improve in-semester retention rates, due to the reduction of barriers to access and success, for first-time, full-time Associate in Science (AS), Associate in Arts (AA), or Undecided students who were required to take the mandatory first-year experience course when compared to students who did not take the course?

4. To what extent does a mandatory first-year experience course improve semester-to-semester persistence rates, due to the reduction of barriers to access and success, (fall-to-fall and fall-to-spring) for first-time, full-time Associate in Science (AS), Associate in Arts (AA), or Undecided students who were required to take the mandatory first-year experience course when compared to students who did not take the course?

Significance of the Study

After doing research and completing this study, the results will add to the current research on how mandatory first-year courses improve in-semester retention and persistence rates for rural community college students, therefore reducing or helping to eliminate the barriers they encounter on a daily basis. In addition, this study will add to the research on how mandatory first-year experience courses can help students be successful from start to finish, helping them be successful in college so they can make a successful transition from college to career and beyond. This study will also aim to help rural community college faculty and staff understand that mandatory first-year experience courses can be successful in helping to reduce or eliminate the barriers to access and success faced by many rural community college students. The current research on first-year experience courses and programs is limited, and based mainly on first-year experience courses at Universities, so this study will also help to broaden the research base available on first-year experience courses and programs at the two-year level.

12. Research Objectives:

a. List the research objectives/hypotheses.

This study will investigate the effect that a mandatory first-year experience course, FYE 105, implemented at Hazard Community and Technical College, has had on in-semester retention rates and semester-to-semester persistence rates for

rural community college students. If an improvement in in-semester retention and semester-to-semester persistence rates can be shown, then in turn, it can be said that the strategies taught in FYE 105 has helped students to better overcome the barriers to access and success.

The null hypothesis for the in-semester retention research question is that there is no significant difference between the in-semester retention rates of first-time, full-time Associate in Science (AS), Associate in Arts (AA), or undecided students that did not take the mandatory first-year experience course compared to the in-semester retention rates of first-time, full-time Associate in Science (AS), Associate in Arts (AA), or undecided students who did take the mandatory first-year experience course. The alternative hypothesis for the in-semester retention research question is that there will be a difference between the two groups.

The null hypothesis for the semester-to-semester persistence research question is that there is no significant difference between the semester-to-semester persistence rates of first-time, full-time Associate in Science (AS), Associate in Arts (AA), or undecided students that did not take the mandatory first-year experience course compared the persistence rates of first-time, full-time Associate in Science (AS), Associate in Arts (AA), or undecided students who did take the mandatory first-year experience course. The alternative hypothesis for the semester-to-semester persistence research question is that there will be a difference between the two groups.

13. Project Location:

a. Where will the study take place?
Hazard Community and Technical College

b. If the study will take place at a location other than EKU, attach a letter from an authorized representative of the organization granting permission to use facility for research purposes.
☐EKU only ☒ Letter(s) attached

c. Will any data be collected through organizations other than Eastern Kentucky University?
☐No ☒Yes, complete the following:

- Will personnel of the organization be involved in the data collection process or have access to data after collection? ☒No ☐Yes - If yes, list personnel on page 1, include copies of CITI completion reports, and define role here: _____

14. Subject Population:

a. What criteria will be used to determine the *inclusion* of participants in the study?
Existing data will be used and will include first-time, full-time Associate in Science (AS), Associate in Arts (AA), or Undecided students at Hazard Community and Technical College.

b. What criteria will be used to determine the *exclusion* of participants in the study?
Existing data will be used. All students not meeting the criteria in 14a will be excluded.

c. Anticipated Number of Participants *(maximum):* 200
d. Age Range of Participants: N/A
e. Gender of Participants: ☐Male ☐Female or ☒Gender not relevant to study
f. Ethnicity of Participants: _____ or ☒Ethnicity not relevant to study
g. Health Status of Participants: _____ or ☒Health status not relevant to study

15. Recruitment of Participants:

a.How will prospective participants be identified for recruitment into the study?

Since existing data will be used, there will be no need for identification of participants.

b. **Describe the recruitment procedures to be used with potential participants.** Since existing data will be used, there will be no need for identification of participants.

c. **Recruitment materials to be used:** Check all that will be used and attach copies: ☒None, ☐Advertisement, ☐Flyer, ☐Telephone Script, ☐Verbal Recruitment Script, ☐Cover Letter, ☐Text to be posted in electronic participation management software ☐Other:

16. **Ensuring Voluntary Participation**: While studies that are appropriate for exemption are not required to formally document the informed consent process, investigators are expected to provide information to potential participants and ensure their voluntary agreement to participate.
    a. **What procedures will be followed to ensure that potential participants are informed about the study and made aware that their decision to participate is voluntary?**
    Since this study is using existing data, anything that might be used to identify participants will be removed.

    b. **Consent materials to be used:** Formal consent forms are not generally required for exempt research; the following are examples of items typically used in exempt research to ensure voluntary participation. Check all that will be used and attach copies: ☒None, ☐Cover Letter, ☐Introductory paragraph on data collection instrument, ☐Consent Form, ☐Other:

17. **Research Procedures**
    a. **Describe in detail the research procedures to be followed that pertain to human participants.** Be specific about what you will do and how you will do it.

    Existing data will be used from the Office of Institutional Research at HCTC. Anything that might be used to identify participants will be removed prior to the data being given to me. The HCTC Office of Institutional Research will pull the

data related to in-semester retention and semester-to-semester persistence for the two independent groups being studied – first-time, full-time AA, AS, and undecided students who did not take the mandatory FYE course and first-time, full-time AA, AS, and undecided students who did take the mandatory FYE course. Once the data is given to me, the data will be put into Statcrunch to be analyzed.

18. Potential Risks

a. **Describe any potential risks**—physical, psychological, social, legal, or other.
None.

b. **What procedures will be followed to protect against or minimize any potential risks**?
Anything that might be used to identify participants will be removed.

19. Research Materials, Records, and Confidentiality

a. **What materials will be used for the research process?** Include a description of both data collected through the study as well as other data accessed for the study.

Existing data from the HCTC IR office will be used.

b. **Describe procedures for maintaining the confidentiality of human participants data**.
Data collected will be presented in a manner that all identifying information has been removed, and results will be reported in an aggregate manner.

c. **Who will have access to the data?** If anyone outside the research team will have access to the data, provide a justification and include a disclaimer in consent documents.
N/A

d. **Describe how and where research records will be stored.** Note that all research-related records must be maintained for a period of three years from the study's completion and are subject to audit. Student research records must be maintained by the faculty advisor who signs the application or provided to the IRB for records maintenance.

Data is stored in a password protected database prior to being pulled by the HCTC IR office. The HCTC IR Office is located in the Smith Administration Building room number 104A on the Lees College Campus of HCTC in Jackson, KY. Once they pull the data, it will be stored on their password protected computer in that same office. Once given to me, the electronic records will be kept on a password-protected computer in my office, Jackson Hall 217, on the Lees College Campus of HCTC in Jackson, KY. Any hard copies will be kept in that same office.

e. **How will data be destroyed at the end of the records retention period** (i.e., shredding paper documents, deleting electronic files, physically destroying audio/video recordings)?

Documents will be shredded after the three-year period. Electronic documents will be deleted after the three-year period.

20. Application Checklist:

☒Application for Exemption Certification (this application)

☒CITI Training Completion Reports for all investigators, key personnel, and faculty advisors

☐If applicable: recruitment materials (i.e., advertisements, flyers, telephone scripts, verbal recruitment scripts, cover letters, etc.)

☐If applicable: consent form, consent script, or introductory cover letter

☐If applicable: Instrument(s) to be used for data collection (i.e., questionnaire, interview questions, or assessment scales)

☐If applicable: grant/contract proposal narrative (required if study is funded)

☒If applicable: letter(s) granting permission to use off-campus facility for research

Appendix E: Eastern Kentucky University IRB Approval

Hello Amanda Spencer-Barnes,

Congratulations! Using a limited review process, the Institutional Review Board at Eastern Kentucky University (FWA00003332) has approved your request for an exemption determination for your study entitled, "Barriers to Access and Success for Rural Community College Students at Rural Community and Technical College: Understanding the Effect of a Mandatory First-Year Experience Course on Retention and Persistence" This status is effective immediately and is valid for a period of three years as long as no changes are made to the study as outlined in your limited review application. If your study will continue beyond three years, you are required to reapply for exemption and receive approval from the IRB prior to continuing the study.

As the principal investigator for this study, it is your responsibility to ensure that all investigators and staff associated with this study meet the training requirements for conducting research involving human subjects and comply with applicable University policies and state and federal regulations. Please read through the remainder of this notification for specific details on these requirements.

Adverse Events: Any adverse or unexpected events that occur in conjunction with this study should reported to the IRB immediately and must be reported within ten calendar days of the occurrence.

Changes to Approved Research Protocol: If changes to the approved research protocol become necessary, a Protocol Revision Request must be submitted for IRB review, and approval must be granted prior to the implementation of changes. If the proposed changes result in a change in your project's exempt status, you will be required to submit an application for expedited or full review and receive approval from the IRB prior to implementing changes to the study. Changes include, but are not limited to, those involving study personnel, subjects, recruitment materials and procedures, and data collection instruments and procedures.

Registration at ClinicalTrials.gov: If your study is classified as a clinical trial, you may be required by the terms of an externally-sponsored award to register it at ClinicalTrials.gov. In addition, some medical journals require registration as a condition for publication. In the case of journals with membership in the International Committee of Medical Journal Editors, clinical trials must be registered prior to enrolling subjects. It is important that investigators understand the requirements for specific journals in which they intend to publish. In the case of sponsored project awards, timeline requirements will vary for awards that require registration. Approved consent forms must be uploaded in the system for all Federally-funded clinical trials after subject enrollment has closed, but earlier

registration is not required for all agencies. If you have questions about whether a sponsored project award requires registration and on what timeline, please send an email to tiffany.hamblin@eku.edu before beginning recruitment so that the specific terms of the award can be reviewed. If you have a need to register your study and do not have an account in the system, please send an email to lisa.royalty@eku.edu and request to have a user account created.

If you have questions about this approval or reporting requirements, contact the IRB administrator at lisa.royalty@eku.edu or 859-622-3636.

For your reference, comments that were submitted during the review process are included below. Any comments that do not accompany an "I approve" response have been provided to you previously and were addressed prior to the review process being completed.

View Application

Faculty Advisor Approval

Reviewer 1

Comments	Response
Reviewer Input: : Good luck with your study	I Approve

Reviewer 2

Comments	Response
Reviewer Input: : As stated to the Dissertation Chair, Dr. Charles Hausman, during the prospectus hearing: The student, Amanda Spencer-Barnes, will need to complete prospectus cleanup as she writes her dissertation to include additional literature review, citation corrections, write thoughts more clearly, and remove the students opinion throughout. The student admitted that the college where she plans	I Approve

to collect her data is small and she is not sure if the site will have enough participants. However, the student stated that the college will not allow her to proceed unless she has received IRB clearance. Dr. Charles Hausman assured the committee that he will guide the student and help her address the committees' concerns. The student's presentation of her proposed study seemed well thought out, therefore the committee voted to allow the student to proceed.	

Reviewer 3

Comments	Response
Reviewer Input: : Looking forward to reading your results.	I Approve

Department Chair Approval

Reviewer 1

Comments	Response
Reviewer Input: : 09-21-20 The background provided is strong and the research questions are much stronger. It is still not completely clear whether the data examined for the study will include any additional information beyond in-semester retention and semester-to-semester persistence, such as demographic information (gender, race, ethnicity, age, etc) that might also impact retention. It seems as if the intent is to ONLY consider retained or not retained for the population of 200 students enrolled in the FYE. If so, there will be little to discuss in the results and missed opportunities to learn whether there are greater effects for some populations as opposed to others by gender, race, age, etc. If additional data beyond those two variables (in-semester retention and semester-to-semester retention) will be evaluated that should be included in the	I Approve

Research Procedures section. I am comfortable approving this to move forward now, but that is something to consider. The study is an interesting one with an appropriate theoretical framework and potential to add to previous studies with the nuance of Community and Technical Colleges. Sections of the background are redundant with some verbatim text that is also included elsewhere, such as in the introduction and background or within the purpose of the study. Direct quotes are overused; they should only be used when the text is so well-written that it would lose something if put into your own words. There are grammatical and mechanical errors that need editing. The research questions need work. They should not be questions that can be answered with a yes or no, such as the 1st one. Instead, they should be phrased as open-ended questions, such as "To what extent does a mandatory first-year course experience improve...?" There also doesn't appear to be a direct relationship between the research questions and the reduction of barriers to access and success for the participants. How will you make those connections from the data collected? Also, your application makes it sound as if you have already collected data, which you cannot do until you have IRB approval. I think you mean to say existing data will be used, however, you have not provided any explanation of what that existing data consists of. You need to describe in detail how data will be collect3ed from that already available, what that data is specifically, and how you will analyze it.	

IRB Review - Round 1

Reviewer 1

Comments	Response
Reviewer Input: : Requires more specifics regarding where the data is being stored. ie. building, room number	I Do Not Approve

IRB Review - Round 2

Reviewer 1

Comments	Response
Reviewer Input: : Approve	I Approve