


January 2016

Assessing the impact of first-year experience courses on student success in Community and Technical Colleges

Luv'Tesha L. Robertson
Eastern Kentucky University

Follow this and additional works at: <https://encompass.eku.edu/etd>

 Part of the [Educational Assessment, Evaluation, and Research Commons](#), and the [Higher Education Commons](#)

Recommended Citation

Robertson, Luv'Tesha L., "Assessing the impact of first-year experience courses on student success in Community and Technical Colleges" (2016). *Online Theses and Dissertations*. 418.
<https://encompass.eku.edu/etd/418>

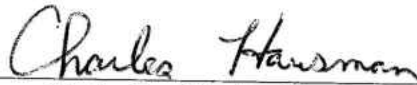
This Open Access Dissertation is brought to you for free and open access by the Student Scholarship at Encompass. It has been accepted for inclusion in Online Theses and Dissertations by an authorized administrator of Encompass. For more information, please contact Linda.Sizemore@eku.edu.

ASSESSING THE IMPACT OF FIRST-YEAR EXPERIENCES COURSES ON
STUDENT SUCCESS IN COMMUNITY AND TECHNICAL COLLEGES

By

Luv'Tesha L. Robertson

Dissertation Approved:



Chair, Dr. Charles Hausman



Co-Chair, Dr. Tara Shepperson



Member, Dr. James Bliss



Member, Dr. Jerry Sims



Dean, Graduate School

STATEMENT OF PERMISSION TO USE

In presenting this thesis/dissertation in partial fulfillment of the requirements for a Doctor of Education in Educational Leadership and Policy Studies degree at Eastern Kentucky University, I agree that the Library shall make it available to borrowers under rules of the Library. Brief quotations from this thesis are allowable without special permission, provided that accurate acknowledgment of the source is made.

Permission for extensive quotation from or reproduction of this thesis may be granted by my major professor, or in [his/her] absence, by the Head of Interlibrary Services when, in the opinion of either, the proposed use of the material is for scholarly purposes. Any copying or use of the material in this prospectus for financial gain shall not be allowed without my written permission.

Signature Dr. Joshua S. Robertson

Date 5/2/16

Assessing the impact of first-year experience courses on student success in Community
and Technical Colleges

By

Luv'Tesha L. Robertson

Eastern Kentucky University

Richmond, Kentucky

2016

Submitted to the Faculty of the Graduate School of

Eastern Kentucky University

in partial fulfillment of the requirements

for the degree of

DOCTOR OF EDUCATION-EDUCATIONAL LEADERSHIP AND POLICY STUDIES

May, 2016

Copyright © LUV'TESHA L. ROBERTSON, 2016
All Rights Reserved

DEDICATION

This dissertation is dedicated to my beloved parents, Virginia D. Anderson and James W. Thompson for their unwavering support, guidance, inspiration and unconditional love; and to my beloved siblings, Meledia C. Anderson and Robert J. Anderson for always believing in me and inspiring me to always be the best.

Special recognition is given to my husband, Phillip Robertson Sr., our beautiful children, Jai'Da and Phillip Jr., and our Chihuahua, Deebo, for being the wind beneath my wings.

ACKNOWLEDGMENTS

This journey has not been the easiest; however, it has been worth it. First and foremost, I would like to give thanks and great appreciation to GOD, who continuously served as the light unto my path, providing me guidance, strength and courage through this process, reaffirming that through him all things are possible. My family has been such a blessing to me during this process. Thank you for giving me the opportunity to work and attend class. You served as a great support system-providing feedback, taking the time to listen, assisting me with research, staying up with me endless hours and critiquing my paper. I wish to thank each of you, my husband, Phillip Sr., and our two children, Jai'Da and Phillip Jr.-for your continued support and love. You are my inspiration and love of my life. Thank you, without you I would not be complete.

I am appreciative of each member of my committee and the guidance you have provided. Dr. Shepperson, thank you for serving as my mentor, coach, advisor and friend. I am grateful to you for the major role you played in assisting me to reach this goal. Dr. Hausman, thank you for the patience, support and guidance you provided as my dissertation chair. Dr. Bliss, thank you for your excellent suggestions, encouragement and support. Dr. Sims, thank you for your kindness, inspiration and leadership. You have a soft way of leading in a direction one needs to follow. Finally, I recognize the professors at Eastern Kentucky University and my cohort, who have supported me in reaching this goal. To each of you, thank you for believing in me. You are all truly a blessing.

ABSTRACT

This study examined the impact *first-year experience* courses have on first-year student performance when enrolled in these courses at public community and technical colleges in Kentucky. The target population for this research study was composed of freshman students participating in the course compared to students not participating in the same course in the same public community and technical colleges across the Bluegrass Region. Roughly 2,000 students were selected from the 2014-2015 fall academic year for this quantitative research study.

This study will aim to determine the effect of a *first-year experience* course on student performance and outcomes of first-year, at-risk students. The following dependent variables will be evaluated in this study and used to operationalize student academic success: (1) number of credit hours successfully completed at the end of the first year; (2) first-year retention rates; and (3) first-year GPA.

Only student data from public community and technical colleges in Kentucky were utilized for this study. The student population assessed consists of diverse backgrounds of individuals based on: pre-college entry characteristics (i.e., socioeconomic status; gender, age, first-generation status, college-readiness; race; and ethnicity); program participation in FYE105; and first-year student academic outcomes (i.e., number of credit hours at the end of the first year; first-year grades; first-year GPA; and first-year retention rates).

A causal-comparative research design was best suited for this study because of the nature of the attributes measured. The primary analytic method was an Analysis of Covariance (ANCOVA). An Analysis of Covariance was run to compare the academic achievement between first-year, full-time FYE participants and first-year, full-time non-FYE participants after controlling for pre-college entry characteristics. Students participating in FYE105 and non-FYE105 participants were tracked in cohorts through the end of the 2014-2015 academic year.

KEYWORDS: First-year experience courses, Student success, Public community and technical colleges, First-year, at-risk students, Retention, Learning environments, Learning theories

TABLE OF CONTENTS

CHAPTER	PAGE
I. INTRODUCTION	1
Statement of the Problem	6
Purpose Statement	9
Research Question	10
Significance of the Study.....	10
Overview of Methodology	13
Definition of Terms	15
II. LITERATURE REVIEW	21
Purpose of Community and Technical Colleges.....	21
Funding Barriers for Community and Technical Colleges.....	23
Changing Accountability for Community and Technical Colleges	26
Accountability for First-Year Student Success	27
Barriers Effecting First-Year Student Success at Community and Technical Colleges.....	29
First-Generation Students.....	30
College Readiness	31
Cost-Related Factors & Low Socioeconomic Status	31
First-Generation Familial Support.....	32
First-Year Academic Performance	33
First-Generation Student’s Grades and GPA	34
Gender	35
Race/Ethnicity	36
Learning Environments at Community and Technical Colleges	37
Learning Theories in Community and Technical Colleges	37
Kolb’s Experiential Learning Theory	39
Mezirow’s Transformational Learning Theory.....	40
Retention Theories for First-Year Academic Success	41
Conceptual Framework for First-Year Student Academic Success.....	44

First-Year Experience Courses as High-Impact Practices	46
First-Generation Students at Community and Technical Colleges	47
First-Year Student Support Systems at Community and Technical Colleges	48
Purpose of First-Year Experience Courses in Community and Technical Colleges	49
Kentucky’s First-Year Student Intervention Strategies.....	50
The Need for First-Year Experience Courses in Kentucky.....	52
Benefits of First-Year Experience Courses in Kentucky	54
First-Year Experience Pedagogy at Community and Technical Colleges ..	57
III. METHODOLOGY	60
Context of the Study	62
FYE105 Courses in Community and Technical Colleges in Kentucky	63
Study	64
Research Design and Analysis.....	65
Sample.....	66
Data Collection Procedures	72
Variables in the Study	72
Pre-College Entry Characteristics.....	73
Delimitations and Limitations	74
IV. RESULTS	75
Research Question	76
Data Collection.....	76
Mean Scores.....	76
ACT Composite Scores	76
Racial Minority	77
Pell Eligible	78
Crosstabs: Retention.....	80
First-Year Experience 2014	80
Racial Minority	82
Pell Eligible	83

Univariate Analysis of Covariance (ANCOVA)	84
Term GPA	85
Cumulative Credits Earned	87
Retained	90
V. DISCUSSION OF RESULTS	93
Reasons for Insignificant Differences	93
External Factors	94
Theoretical Foundations of Experiential and Transformational Learning	95
Predictors of Student Participation in FYE105.....	96
Predictors: Pre-College Entry Characteristics and First-Year Academic Success	97
Implications for First-Year Experience Policies.....	97
Recommendations for Policy and Practice	100
Financial Stability	101
External Funding From Grants	101
SB 1 Implementation Grant	102
President Obama’s America’s College Promise	102
Recommendations for Future Research.....	104
Linking First-Year Programs	104
Mandate FYE Course.....	104
Implementation of a Mixed Methods Study.....	104
Scholarship Opportunities	105
Leadership and Instruction in FYE Courses.....	106
Summary	107
LIST OF REFERENCES	109
APPENDICES	
A. KENTUCKY COMMUNITY AND TECHNICAL COLLEGE SYSTEM: 16 LOCATIONS AND ENROLLMENT	128
B. GENERIC SYLLABUS FOR ACHIEVING ACADEMIC SUCCESS (FYE105) .	131
C. INSTITUTIONAL REVIEW BOARD EXEMPTION CERTIFICATION.....	143

LIST OF TABLES

Table 3.1. Frequency Distribution of First-Year Experience Participants 67

Table 3.2. Gender Breakdown of First-Year Participants 68

Table 3.3. Age Breakdown of First-Year Participants 69

Table 3.4. Mean Age of First-Year Participants 70

Table 3.5. Crosstabs: Racial Minority..... 71

Table 4.1. ACT Composite Score 77

Table 4.2. Racial Minority 78

Table 4.3. Pell Eligible 79

Table 4.4. Crosstabs: Pell Eligible-First-Year Experience 2014 80

Table 4.5. Crosstabs: Retained-First-Year Experience 2014 81

Table 4.6. Crosstabs: Retained-Racial Minority..... 82

Table 4.7. Pearson’s Chi-Square Test: Retained Racial Minority 83

Table 4.8. Crosstabs: Retained-Pell Eligible 84

Table 4.9. Pearson’s Chi-Square Test: Retained Pell Eligible 84

Table 4.10. Descriptive Statistics: Term GPA 85

Table 4.11. Levene’s Test of Equality of Error Variances: Term GPA 86

Table 4.12. Tests of Between-Subjects Effects: Term GPA..... 86

Table 4.13. Estimated Marginal Means: Term GPA 87

Table 4.14. Between-Subjects Factors..... 88

Table 4.15. Descriptive Statistics: Cumulative Credits Earned 88

Table 4.16. Levene’s Test of Equality of Error Variances: Cumulative Credits Earned..... 88

Table 4.17. Tests of Between-Subjects Effects: Cumulative Credits Earned	89
Table 4.18. Estimated Marginal Means: Cumulative Credits Earned	89
Table 4.19. Descriptive Statistics: Retained.....	90
Table 4.20. Levene’s Test of Equality of Error Variances: Retained	91
Table 4.21. Tests of Between-Subjects Effects: Retained.....	91
Table 4.22. Estimated Marginal Means: Retained.....	92

CHAPTER 1

INTRODUCTION

Community and technical college students drop out at alarming rates, especially during their first year. As a result, colleges have designed special programs and services to ensure student success, which is vital for improving retention. According to the latest national figures, the retention rate of first-year, at-risk students attending community and technical colleges remains steady at 46.5% while the semester to semester rate continues to decline by 2.8%. For the purpose of this study, the retention rate is defined as the percentage of students who return to the *same* community and technical college for their second year, while the persistence rate is characterized as the percentage of students who return to *any* institution (public two-year or 4-year university) for their second year (National Student Clearinghouse, 2014).

Community and technical colleges are often the focal points of communities. The Southern Regional Education Board of Community College Commission (SREB) defines the roles of community and technical colleges as vital components to increasing educational achievement, increasing access and completion, and eliminating achievement gaps for low-income, underprepared, and underrepresented populations. Because of their affordable, community-based institutions, they are valued for the opportunities they present to provide credentials, programs, and services that will assist in closing the readiness gap.

Based on the National Center for Public Policy and Higher Education (NCPPE), the readiness gap measures the relationship between college eligibility, access and college

readiness by institutional sectors. The readiness gap shows that 75% of first-year community and technical college students are underprepared for postsecondary studies. The major disconnection among state accountability structures, national structures of college readiness standards in P-12 and the college readiness expectations in postsecondary education continue to present major barriers to improve college readiness.

The greatest concern is the lack of college-preparatory requirements in high schools and high school examination scores which consist of standardized assessment scores from the American College Testing (ACT) assessment based on each state's specific curriculum and standards.¹ These exit exams only measure proficiency at the 8th to 10th grade levels to ensure states are meeting accountability measures through the *No Child Left Behind Act* (NCLB). NCLB holds states accountable for high school graduation rates irrespective of the proficiency levels represented by an equivalency diploma. The problem is that state accountability measures for the ACT do not accurately measure the development of critical thinking skills associated with reading, writing, and math; in addition, national benchmarks are higher, except in English and include science, which Kentucky does not (National Center for Public Policy [NCPP], 2010; "ACT college readiness," 2015).²

¹ Readiness standards vary widely across states and across institutions within states which further discredits the meaning of national statistics on college readiness.

² National ACT benchmarks according to ACT, Inc. represent the median course placement values for institutions to determine college readiness in credit-bearing first-year college courses.

President Obama's Blueprint for Accountability identifies barriers that impinge upon college readiness and the academic success of first-year, at-risk students. These barriers, which focus specifically on the flaws of NCLB and do not incentivize college completion indicate that: (1) NCLB provides states incentives to lower standards; (2) NCLB mislabels schools as failing and imposes one-size-fits-all interventions; and (3) NCLB does not do enough to recognize student growth or school progress (U.S. Department of Education, 2011).

Community and technical colleges are uniquely designed to meet the high-demand needs of first-generation, non-traditional, and underprepared students. Generally, community and technical colleges' offer many programs and services states require to achieve educational attainment goals that promote the economic vitality of the communities they serve (SREB, 2015). Many of the programs and services offered at community and technical colleges focus on comprehensive educational programs. Because the focus is mainly on providing workforce development and skills training, there have been few studies about why community and technical colleges continue to fall short of *teaching* the essential skills required for first-year student success.

Research data show that community and technical colleges in Kentucky face many challenges. Predictors such as: the decline of traditional-age students, the poor quality of high school graduates, and the changing demographics of first-generation students; in addition to increasing tuition rates, economic instability, and the demand for a more competitive workforce, have forced community and technical colleges to develop a stronger commitment to improve the quality of education for first-year, at-risk students (Ishler & Upcraft, n.d.; SREB, 2015).

The eligibility process for enrollment at community and technical colleges typically requires only a high school diploma or General Education Diploma (GED) and proof of college-readiness as measured by the ACT, or other mandatory placement exams such as the KYOTE (Kentucky Online Testing Program) or COMPASS (Computer Adaptive Placement Assessment and Support System) to provide evidence of readiness.³ Per the state of Kentucky, college readiness is measured by benchmark requirements on the ACT subject-area test-English, Math, and Reading-to represent the level of preparation required for students to have a 50-75% chance of obtaining a C or higher in corresponding credit-bearing first-year college courses (*The condition of college*, 2015).

The Kentucky Council on Postsecondary Education (CPE) standards for college readiness require high school graduates to have a score of 18 in English, 19 in mathematics, and a 20 in reading (Kentucky Teacher, 2015; “ACT college readiness,”

³ In Kentucky, the COMPASS mandatory placement exam is invalid and no longer given as a measurement to determine college-readiness in postsecondary education.

2015;).⁴ While these testing standards may increase student access to postsecondary education and encourage first-year success for all students, ACT statistics show that only 40% of first-year students meet three or four college readiness benchmarks, followed by 31% who do not meet any of the benchmarks, leaving only 19% of the 90% of ACT-tested graduating students college ready in Kentucky based on 2014 graduating class statistics (NCPPE, 2010; *The condition of college*, 2015).

Open admission policies at many community and technical colleges fulfill the purpose of providing open access to high-quality career and technical programs, workforce training, and continuing education, but aggravates first-year dropout rates (“Our mission and vision,” n.d.). According to Tuckman and Kennedy (2011) statistics show that the national dropout rate for students in community and technical colleges remain steady at 50%, with the majority occurring in the first year. Several studies conclude that first-year, at-risk students are not only underprepared for college, but they also do not know how to be successful college students nor know what resources and services are available to them as a student (Cuseo, Thompson, McLaughlin, & Moono, 2010; Howard & Jones, 2000).

The effectiveness of a *first-year experience* course to enhance the student’s awareness and knowledge of campus resources is a necessity to first-year student success. The *2014 First-Year Engagement Survey* reported that the educational experiences and engagement of students in their first 4-6 weeks of college is most

⁴ National ACT benchmarks are higher except in English and include Science (English 18, Mathematics 22, Reading 22, and Science 23) which Kentucky does not.

critical to student persistence and success. The survey found that roughly 20% of first-year students were not aware of the services and resources available to them on a college campus. Further analysis of this survey discovered that this level of disconnect, particularly in areas such as career counseling, student support services, job placement assistance and personal counseling, greatly attributes to the increasing dropout rates of first-year students and their failure to know how to navigate college successfully. Additional literature found that when first-year, at-risk students are taught how to be successful and given accurate information and ample support, they feel more secure, increasing their chance of success the first year (Hodge, 2014; Howard et al., 2000; Johnson-Bailey & Alfred, 2006; Merriam, 2004).

Statement of the Problem

The first-year experience for first-year, at-risk students is very significant to later higher education success. The importance of this study focuses on identifying effective retention strategies that will contribute to first-year student success, decrease first-year dropout rates and focus on improving programs and services for all students in Kentucky. This topic is important to education because while the process for getting into college has become easier for most students, the national total retention rate for community and technical colleges show that only 56% of first-year students are being successfully retained (National Center for Higher Education Management Systems [NCHEMS], 2014).

First-year, at-risk students need stronger academic and social support for clear pathways early on that will enrich their experiences the first year. The first year signifies

a time when students develop a strong connection with their institution and show gains in academic achievement while learning about strategies, behaviors, and college resources. Each level of academic engagement influences their personal and academic success, maximizing their ability to navigate college, undertake critical and advanced thinking, and improve self-efficacy in terms of habits of study (Cuseo et al., 2010; Lorenzetti, 2013; Mayo, 2013; Redmond, Boucebci, & Engstrom, 2013).

Now, more than ever, community and technical colleges must take responsibility for making sure first-year, at-risk students are provided the resources, education and opportunities to be successful their first year. At-risk students come from all socioeconomic backgrounds and are oftentimes defined as any student who requires intervention to succeed academically (Byrnes, 2009). These students typically display the following characteristics: (1) a history of academic failure; (2) lower self-esteem; (3) lack of psychological attachment to school; and (4) increasing disinvolvement with school (Ormrod, 2010). As at-risk students matriculate into community and technical colleges unable to provide the necessary support services to facilitate their success, the likelihood of their success in these settings is negatively affected.

Community and technical colleges provide a comprehensive range of student support services. These services may include, but are not limited to, academic tutoring, career exploration and planning, counseling and academic advising, financial aid assistance, individual success planning, social and cultural activities, college success workshops, summer bridge programs and transfer assistance. Student support services in community and technical colleges are designed to help students stay in school and be

successful. The purpose of these services provide a personal safety net to assist first-year, at-risk students with building upon their academic strengths and improving their weaknesses (Student Support Services, n.d.).

To combat retention and first-year student success issues in community and technical colleges in Kentucky, *first-year experience* (FYE) courses were created. The framework of the *first-year experience* course is designed to promote academic excellence and personal development in college and beyond by establishing a sense of connectedness and engagement on the campus through student support services, programs and extended orientation experiences (Hodge, 2014; Johnson-Bailey et al., 2006; Merriam, 2004; Mezirow, 1997).

During a review of literature studies regarding *first-year experience* courses, findings suggest that there have been more carefully conducted research studies on first-year student and college success courses, with evidence supporting their effectiveness for promoting success, retention and persistence rates, than any other type of course in the college curriculum (Cuseo et al., 2010; Hunter, 2006). Roughly 90% of institutions requiring a *first-year experience* course show that the most frequently reported categories of students who were required to take the course were identified as those less likely to be considered college-ready. This includes first-year students and students who have been deemed enrolled in developmental courses, admitted provisionally, or participating in student support programs such as TRIO and Upward Bound (2012-2013 national survey, n.d.).

The University of South Carolina's National Resource Center for the First-Year Experience and Students in Transition found that first-year courses maximize the educational experience for first-year success by focusing 50% towards fostering a sense of belonging with the institution, 48% towards orienting freshman to campus resources and services, and 55% towards developing academic and social skills.

Several studies conclude that these types of learning environments not only foster an intellectual, experiential learning community, they also inculcate certain values to introduce the aims of a college education through a seminar experience (Anderson, Briggs, & Scarpati, 2002; Smith, Sungtaek, & Bone; 2008). To determine the effect *first-year experience* courses have on first-year, at-risk student academic success, student outcomes will be measured by the following attributes-gender, race, socioeconomic status, and first-year academic performance based on GPA, the number of accumulated credit hours, and retention. Student success will be evaluated to determine how meaningful *first-year experience* courses are for first-year, at-risk students enrolled in the course comparable to first-year students who do not enroll in the course at public community and technical colleges in Kentucky.

Purpose Statement

The purpose of this quantitative study is to measure the impact *first-year experience* courses have on first-year, at-risk student performance when enrolled in public community and technical colleges in Kentucky. This study will aim to determine the effect of a *first-year experience* course on student performance and outcomes of first-year, at-risk students. The following dependent variables will be evaluated in this

study and used to operationalize student academic success: (1) number of credit hours successfully completed at the end of the first year; (2) first-year grades; (3) first-year retention rates; and (4) first-year GPA.

Literature suggests that certain characteristics play a significant role in first-year student performance because they determine how likely the student will be retained through the first year. During this study, low socioeconomic status based on Pell grant eligibility will be evaluated as a predictor variable. Another factor that will be evaluated to assess whether student success in *first-year experience* courses strengthens the student's ability to learn will include their increased commitment to the college (Brock, 2010; McCullough, Jones, & Cendana, 2007; Inderbitzin & Storrs, 2008; Mayo, 2013; McDonald & Farrell, 2012; Mueller-Joseph, 2007).

Research Question

The central research question guiding this study is:

- Controlling for student characteristics, are there differences in the academic success of first-year, at-risk students at community and technical colleges-served in *first-year experience* courses-compared to students not participating in such courses?

Significance of the Study

For many years, *first-year experience* courses have served as the bridge to first-year student success and student engagement in college settings. The significance of this study is that presently there is a lack of research regarding *first-year experience* courses in community and technical college settings in Kentucky.

Research by Smith et al. (2008) found that the students' general perceptions of the first year do not align with their actual experiences. Additional research on background characteristics of first-year, at-risk students identifies academic preparation, first-year performance, and high risk of attrition as key indicators to why these students do not persist into the second year (Bui, 2002). The purpose of the *first-year experience* course is to help at-risk student's deal with transitional issues, develop academic and social skills, and adjust to the collegiate environment.

Nationally, student success is measured in FYE courses by the freshman cohort one-and-two year retention rates. Based on the need for the course nationally, nearly 60% of all community and technical colleges reported requiring 90% of their first-year students to enroll in the course; but data from the *2012-2013 National Survey of First-Year Seminars* show that only 38% of community and technical colleges actually require the first-year seminar. Further national research found that nearly seventy percent (67.8%) of institutions offer the *first-year experience* course for one semester, followed by over half (53.1%) of all institutions offering the course for general education requirements and nearly forty percent (39.8%) offering the course for elective credit (*2012-2013 national survey, n.d.*).

Despite current research efforts to identify ways in which colleges can improve the social and academic climate during the first year; Anderson et al. (2002) argue that the *first-year experience* course has little hope of succeeding in community and technical college settings. Initially, FYE courses were designed to focus on the four principal qualities that define a college's vision: service, excellence, diversity, and

community. While community and technical colleges focus on these qualities as well, the operational needs of these colleges are based more on the economy. The model is similar to that of supply and demand; when the economy is in a state of distress, enrollment increases based on the need for workforce and education training. When the economy is flourishing, enrollment declines, resulting in staff reductions and budget cuts in areas where student support services are needed the most (*Budget cuts*, 2015).

An improving economy and steep decline in community and technical college enrollment further threatens the need for FYE courses in community and technical colleges. As community and technical colleges focus on implementing research-based strategies to assist the 36% of first-year students identified as academically at-risk, administrators understand how critical the first year is for first-year student success (American Association of Community Colleges [AACC], 2015). As pointed out by Ishler et al. (n.d.), Cabrera and Nora (1993), the students' commitment to attain a degree and remain with the institution is greatly increased when the institution's commitment to the student aligns with the academic and social goals of the student.

The educational attainment level and academic success of these students represent the future of not only education, but also society. According to the National Center for Education Statistics (NCES) by 2023, undergraduate enrollment in post-secondary institutions is projected to increase to 20.2 million, representing 2.5 million students who will matriculate into post-secondary education over the next eleven years. Each year close to 1.1 million students drop out, costing society roughly \$192 million in lost income and taxes ("Characteristics of postsecondary students," 2014). The Eli and

Edythe Broad Foundation (n.d.) found that if institutions could retain just 5% of all dropouts, America could produce an additional \$8 billion each year in savings and revenue.

Despite significant resource consumption and competing priorities in the first year, it is hoped that evidence from this proposed research study will prove that *first-year experience* courses play a very significant role on retention and other indicators of first-year student success. This study will provide effective retention strategies to assist community and technical colleges in Kentucky with developing strategic enrollment management plans, formulating effective retention strategies, and improving *first-year experience* curriculum in support of first-year student success and retention. Findings from this study will justify the importance of the first-year experience for first-year, at-risk students and provide educators with a better understanding of the role *first-year experience* courses play in first-year student success.

Overview of Methodology

This research study was conducted on roughly 2,000 first-year students enrolled full-time during the 2014-2015 fall academic year at a public community and technical college in Kentucky. The independent variable forms two cohorts based on whether students participated in *first-year experience* courses. The rationale for examining these particular time frames are that they represent the pilot semesters of data collection for first-year experience courses at public community and technical colleges in Kentucky.

Only student data from public community and technical colleges in Kentucky were utilized for this study. The student population assessed consists of diverse

backgrounds of individuals based on: pre-college entry characteristics (i.e., socioeconomic status; age, first-generation status, college-readiness; race; and ethnicity); program participation in FYE105; and first-year student academic outcomes (i.e., number of credit hours at the end of the first year; first-year grades; first-year GPA; and first-year retention rates). Other covariates may include gender and college-readiness scores.

The primary analytic method was an Analysis of Covariance (ANCOVA). This method was selected to statistically control for the effects of continuous variables that were of concern but are not the focal point in the study. Descriptive statistics will include means and standard deviations.

Definition of Terms

This study seeks to assess the benefits for first-year, at-risk students enrolled in *first-year experience* courses at public community and technical colleges in Kentucky when learning essential skills in these courses. The following concepts and terms are defined in order to clarify their utilization within the study.

Academic success refers to the academic achievement in educationally purposeful activities that promotes the acquisition of desired knowledge, skills, and competencies of students (York, Gibson, & Rankin, 2015).

ACT (American College Testing) refers to a curriculum and standards-based educational and career planning tool that assesses students' academic readiness for college. The ACT is the national capstone of our States College and Career Readiness System (Overview, 2015).

At-risk student refers to a student who comes from any socioeconomic background that requires intervention to succeed academically (Byrnes, 2009).

Autonomy refers to the understanding, skills, and disposition required to become critically reflective of ones' beliefs through the experiences of others who share universal values (Mezirow, 1997).

Beatty-Guenter (1994) Retention Strategy refers to a typology of retention strategies that clarifies what various retention strategies have in common, and how this understanding can be applied in practice and research (Red River College, n.d.).

College readiness refers to the level of preparation a first-time student needs in order to succeed in credit-bearing courses (courses at the 100 level and above) at a postsecondary institution (“College and career readiness in Kentucky”, n.d.).

College readiness gap refers to the disparity between the skills and knowledge that students gain in high school versus the skills and knowledge that colleges and universities expect (NCPP, 2010).

Community college (Two-year institution) refers to nonresidential academic institutions offering programs of at least two but less than four years duration. Includes occupational and vocational programs of at least 1800 hours. (“Community college (Two-year institution)”, n.d.).

Discourse refers to what and how students understand or arrive at a best judgment regarding a belief (Mezirow, 1997).

Dropout rate refers to a student who is enrolled at the start of the fall semester but does not return the following fall (Tuckman et al., 2011).

Experiential Learning Environments refer to the process whereby learning serves entirely for the purpose of fully attracting and optimizing student talent by creating atmospheres that encompass growth, innovation, productive effort, and collective intelligence from the students (Wiseman and McKeown, 2010).

First-year experience course (FYE) refers to an interactive course that will help freshmen learn strategies which will promote academic, interpersonal, and intrapersonal success in college. Freshmen are a part of a diverse community engaged in curricular and co-curricular life of the college and participate in

opportunities to develop academic plans that will align with their career and life goals (“FYE achieving academic success,” n.d.).

First-generation student refers to a student who is more likely to enroll in postsecondary education part-time, and attend public 2-year institutions; private, for-profit institutions; and other less-than-4-year institutions than their non-first-generation counterparts and are typically classified as those whose parents’ highest level of education is a high school diploma or less or have attended some college, but attained less than a bachelor’s degree (“First-generation students,” 1998).

First-year, full-time student refers to a student attending any institution for the first time at the undergraduate level enrolled in 12 or more credit hours per semester (“First-year student”, n.d.).

High-impact practices (HIP) refer to learning environments where students are actively engaged in the educational process, allowing student learning to go beyond the classroom to be applied in their personal and work lives (2012-2013 national survey, n.d.).

Integrated Postsecondary Education Data System (IPEDS) refers to annual institution-level data collections conducted by the NCES, which involves all postsecondary institutions that have a Program Participation Agreement with the Office of Postsecondary Education (OPE) and the U.S. Department of Education (throughout IPEDS referred to as "Title IV"). Each institution is required to report data using a web-based data collection system. IPEDS

currently consists of the following components: Institutional Characteristics (IC); 12-month Enrollment (E12); Completions (C); Admissions (ADM); Student Financial Aid (SFA); Human Resources (HR) composed of Employees by Assigned Position, Fall Staff, and Salaries; Fall Enrollment (EF); Graduation Rates (GR); Outcome Measures (OM); Finance (F); and Academic Libraries (AL) (“Integrated Postsecondary Education Data System (IPEDS)”, n.d.).

Kolb’s (1984) Experiential Learning Theory (KELT) refers to a learner-centered process in which the students’ knowledge is created through transformation of experience based on four main elements: concrete experience, reflective observation, abstract conceptualization, and active experimentation (Bergsteiner, Avery, & Neumann, 2010; McLeod, 2013; Murphy, 2007).

Learning community refers to a group of students who share common academic goals and attitudes and provide a cohort-based, interdisciplinary approach to higher education (Bielaczyc & Collins, n.d.).

Low socioeconomic status refers to students classified as those who are educationally disadvantaged based on family income, parental education level, parental occupation, and social status in the community (Walpole, 2003).

Mezirow’s (1997) Transformational Learning Theory (MTLT) refers to a theoretical process students undergo during their educational experience which focuses on holistically transforming the student as they progress through and complete their college experience (Mezirow, 1997).

No Child Left Behind Act of 2001 refers to public law 107-110. The act focuses on high-need students and school reform on student achievement to hold states accountable for high school graduation rates (“Fair, flexible and focused,” 2011).

Persistence rate refers to the percentage of students who return to *any* institution for their second year (“First-year persistence,” 2014).

Retention rate refers to the percentage of students who return to the *same* institution for their second year (“First-year persistence,” 2014).

Strategic Enrollment Management refers to a comprehensive process designed to help an institution achieve and maintain the optimum recruitment, retention, and graduation rates of students, where optimum is defined in the academic context of the institution (as cited in Wilkinson, Taylor, Peterson, & Machado-Taylor, 2007).

Tinto’s (1993) Retention Model refers to a framework provided for institutions to follow to ensure successful student engagement the first year. The model focuses on six areas: (1) *first-year experience* courses (2) transition assistance; (3) early contact and community building; (4) academic involvement and support; (5) monitoring and early warning; and (6) counseling and advising (“Tinto’s theory,” n.d.).

Transformational learning environments refer to the process whereby instructors engage with students to create a connection that raises the level of motivation between the student and the instructor (Merriam, 2004; Mezirow, 1997).

Urban community college refers to colleges, located in metropolitan areas, which focus on forming a partnership with the community to educate their students (Mundt, 1998).

University (Four-year institution) refers to a postsecondary institution that offers programs of at least 4 years duration or one that offers programs at or above the baccalaureate level granting academic degrees in a variety of subjects and providing both undergraduate and postgraduate education (“University (Four-year institution)”, n.d.).

CHAPTER 2

LITERATURE REVIEW

Purpose of Community and Technical Colleges

Community and technical colleges are vital to the future of this nation, comprising the largest single sector of the U.S. higher education network. There are currently 13 million students enrolled in approximately 1,150 community and technical colleges in the United States, which accounts for almost half of all first-year college students in America today (Cuseo et al., 2010; Hanson and Amelotte, 2013). Research further suggests that the community and technical college with its rich mission and clear role in higher education, is not only best suited to understand the myriad needs of individual communities, but is comprised of exceptional administrators, faculty and staff who can deal with the constant change and necessary revitalization of American education (SREB, 2015).

Historically, community and technical colleges were liberal arts colleges, patterned after the University of Chicago. In the late eighteenth hundreds, William Rainey Harper, then president of the university, divided undergraduate studies into junior and senior colleges; splitting the four-year baccalaureate into two-year schools. Harper chose the term *associate* to suggest that the degree's value was to be realized when it was *associated* with in-depth study in a single discipline (Hanson et al., 2013; Ting Man, 2005).

For three decades, the model used in Illinois served as the national standard. By the middle of the twentieth century, junior colleges began shifting away from the liberal

arts toward a more comprehensive mission. The schools sought to balance the goals of general education, vocational training and community outreach. By the same token, community and technical colleges became more open-admission institutions, admitting all applicants obtaining a high school equivalency diploma and meeting state mandated testing requirements or other equivalent credentials. That trend continues to this day (Hanson et al., 2013; Ting Man, 2005).

The purpose of community and technical colleges has since evolved to provide students with a low-cost solution to better prepare them to transfer to a 4-year university and train for the workforce. Kentucky community and technical colleges, like many in the nation, operate as urban universities to develop a partnership in the communities they serve to educate its students (Mundt, 1998). The future of improving the quality of education first-generation students receive fits perfectly with the mission of the urban community and technical college setting. With its rich mission and commitment to student success, community and technical colleges are driven by the following core principles to: (1) promote diversity; (2) adopt a campus-wide mission that focuses on scholarship, curriculum, teaching, and service; and (3) improve the student's quality of life through knowledge generation, dissemination and application within the communities they serve.

Funding Barriers for Community and Technical Colleges

The Kentucky Council on Postsecondary Education (CPE) and the Southern Regional Education Board (SREB) strongly believe that Kentucky's funding strategies for community and technical colleges (16% federal funding; 28% state funding; 17% local sources; 30% tuition; and 9% other sources) highly influence postsecondary education access, retention and completion. Community and technical college revenues are derived primarily from tuition revenues and fees. The recent push to educate a more skilled workforce has forced community and technical colleges to compete for funding with other training programs in the state that are not part of postsecondary education. The need for additional funding to aid in supporting the structural deficits to fund support services for students is imperative to postsecondary access, retention and completion (AACC, 2016; Shaffer, 2012).

Decreasing resources and low unemployment rates continue to pose issues for community and technical colleges in Kentucky. According to Shaffer (2012), community and technical colleges are unable to keep pace with the demands from local businesses and industries to provide a more skilled workforce. The reductions in tuition revenues paired with years of budget cuts at the state level creates major funding barriers for community and technical colleges in Kentucky. Further research on funding strategies in Kentucky found that the state's improving economy has caused a decline in community and technical college enrollment, resulting in \$36 million in budget cuts, affecting faculty, staff, support services and program offerings (*Budget cuts*, 2015).

A report by Bradley (2013) on higher education inequities argue that community and technical colleges face this problem due to the country operating as a two-tiered higher education system. The report found that two-year colleges, which serve mostly low-income and minority students, receive 51% less in per-pupil operating expenditures than four-year public universities to educate those students with the greatest needs. The education divide, which allows state and federal funding systems to provide unequal financial resources to programs which support low-income and working-class citizens, can greatly be attributed to the growing inequities in higher education. Further review of the report found that community and technical colleges' meager resources, specifically-human capital (the embodiment of skill sets and knowledge bases possessed individually and collectively by individuals) and social capital (the privileged channels of information and resources students need to develop trusting relationships) also contribute to poor retention and student success rates (Smith, 2007; Ravitch, 2011; Greenwald, 2012).

One solution to combat community college funding barriers in Kentucky is President Obama's America's College Promise proposal. The proposal provides an ideal framework for narrowing America's skills gap to increase student enrollment, retention, persistence, completion and employment. The proposal is very important to higher education because the national skills gap statistic show that over 9.1 million Americans are unemployed, leaving 4.8 million jobs unfilled due to applicants lacking practical, technical, and job-ready skills required to fulfill the jobs local businesses and industries need (Wyman, 2015).

The proposal holds states accountable for investing more in higher education and training to fulfill the following objectives: (1) enhance student responsibility and cut the cost of college for all Americans; (2) build high-quality community and technical colleges; (3) ensure shared responsibility with states; (4) expand technical training for middle class jobs; (5) build on state and local programs; and (6) expand federal support to help more students afford college (The White House, 2015).

According to Calvert (2015), the free community college education reform focuses on providing more advising, mentorship, counseling and student support services on community college campuses. Two states, Tennessee and the City of Chicago, have already initiated the program showing great improvement in enrollment, persistence and college completion. During the first year of the program in Tennessee, almost 90% of the state's high school graduating class applied. Since the inception of the program, Tennessee has a graduation rate of 80% and a job placement rate of 85%.

One of the promises of higher education is to make sure students start in a position to succeed. The improving economy has prompted an increase in demand for degrees in high demand career fields and workforce training. To stay on track, state governments will have to find solutions that will support the growing needs of their economies. Together, free community college and *first-year experience* courses will serve as the avenue for postsecondary education and career training for students. More importantly, student success in community and technical colleges symbolizes an institutional commitment to academic excellence for all students and economic vitality for the communities they serve (Voigt & Hundrieser, 2008).

Changing Accountability for Community and Technical Colleges

The face of higher education is changing rapidly, reflecting dramatic changes in both education and the workforce. According to the *Projections of Education Statistics to 2022*, total enrollment in postsecondary degree-granting institutions is projected to increase 14%, from 21 million to 24 million, by 2020 (NCES, 2015). The largest growth is projected for first-time freshman in the two-year public sector, comprising 16% of total enrollment. With an increased responsibility to serve this changing demographic, colleges must allocate additional resources to combat student preparation and their ability to pay for college. Many factors such as increasing tuition rates, economic instability, and the demand for a more competitive workforce have allowed community and technical colleges to develop a stronger partnership with the communities they serve (SREB, 2015).

The changing policies toward accountability have caused community and technical colleges to place great emphasis on keeping students on track to graduation. The Center on Education Policy (CEP) serves as a catalyst to improve accountability measures and ensures that the most serious issues affecting accountability are brought to the forefront. One of the most prominent issues facing community and technical college accountability is student performance and persistence (Stovall, 2000). Due to historical low persistence and completion rates in community and technical colleges, there is a growing urgency for students to be better prepared for the workforce and successfully transfer to four-year universities.

Research by Reed and Kromrey (2001) suggests that many students graduate from college lacking proficiency as critical thinkers, writers and readers. There have been few studies about why postsecondary institutions continue to fall short of teaching these essential skills required for first-year student success. With the community and technical colleges focus on student performance, the *first-year experience* course provides the ideal framework for first year academic success. More importantly, there has been more carefully conducted research on student and college success in *first-year experience* courses with evidence supporting their effectiveness for promoting first-year success than any other type of course in the college curriculum (Cuseo et al., 2010; Hunter, 2006). These courses serve a very valuable purpose in higher education for first-year skill development and successful transitioning to college; being equally essential to sustaining persistence and retention rates.

Accountability for First-Year Student Success

Accountability measures for student achievement in community and technical colleges has resulted in an increased effort to improve strategic enrollment management (SEM) for first-year students. Strategic enrollment management is characterized by the Educational Policy Institute (EPI) as “a comprehensive process designed to help an institution achieve and maintain the optimum recruitment, retention and graduation rates of students, where optimum is defined in the academic context of the institution” (as cited in Wilkinson et al., 2007). Based on research from EPI, SEM is guided by the following principles:

- Establishing clear enrollment goals;

- Promoting student success through multiple dimensions of personal and academic development to include personal validation, self-efficacy and sense of purpose, active involvement, reflective thinking, social integration and self-awareness;
- Determining, achieving and maintaining optimum enrollment;
- Enabling the delivery of effective academic programs;
- Generating tuition;
- Enabling financial planning;
- Increasing organizational efficiency; and
- Improving service levels (Cuseo, n.d.; Wilkinson et al., 2007).

The problem with SEM models in community and technical colleges is that they focus solely on increasing enrollment to stabilize or increase institutional revenues and not on a student's probability of graduating. This presents an even greater problem with accountability in community and technical colleges. As long as an institution is maintaining optimum retention and graduation rates per the Integrated Postsecondary Education Data System (IPEDS), clear enrollment goals will be established based on institutional capacity and the institution's strategic plan; not on the needs of the student.

Community and technical colleges serve a very diverse population of students which bring a number of characteristics, experiences and backgrounds to their colleges. FYE provides a structural approach to strategic enrollment management that not only is

mission-driven, but also creates an institutional culture of student success. Popular learning theories and conceptual frameworks such as Mezirow's (1997) Transformational Learning Theory, Kolb's (1984) Experiential Learning Theory, and Tinto's (n.d.) Retention Model, make SEM planning more results-driven for community and technical colleges.

Collectively, as community and technical colleges focus on ways to promote academic, interpersonal and intrapersonal success through *first-year experience* courses, higher education will develop a better understanding of their role in these learning environments. Further research by Wilkinson et al. (2007) concludes that retention models that are partnered with SEM goals raise student expectations for performance and improve the retention rates of full-time, first-year, at-risk students.

Barriers Effecting First-Year Student Success at Community and Technical Colleges

A recent study by Stout (2006) on first-year student success in community and technical colleges found that making the first-year experience successful for first-year students can be very challenging, especially first-generation, given their diverse demographic backgrounds. The first-generation student profile reflects a wide variance in college readiness, learning styles, socioeconomic status, race, gender, family obligations and first-year academic performance. For the purpose of this study, gender, race, socioeconomic status, and first-year academic performance (i.e., GPA, grades, college-readiness scores and accumulated number of credit hours) will be evaluated to determine the affect these variables have on first-year academic success.

First-Generation Students

First-generation students are classified as more likely to enroll in postsecondary education part-time, attend public 2-year institutions; private, for-profit institutions; and other less-than-4-year institutions than their non-first-generation counterparts. Roughly, 68% of first-generation student's parents' highest level of education is typically a high school diploma or less (40.8%) or they have attended some college, but attained less than a bachelor's degree (27.1%) ("First-generation students," 1998; NCES, 1998).

In a 2002 study by Bui, various factors were identified in support of why first-generation students begin their postsecondary education at two-year institutions versus four-year institutions. Bui (2002) reported that first-generation students are (1) not academically prepared to gain admission at four-year institutions; (2) not able to afford the tuition costs at four-year institutions; and (3) require flexibility in course scheduling to meet other personal obligations. First-generation students are also more likely to be older, have a lower socioeconomic status and have dependents (NCES, 1998).

Community and technical colleges focus on providing adequate support services to meet the high demand needs of the very diverse population of first-generation students they serve. The background characteristics of these students present various challenges to academic success. Because state funding continues to decline year after year, community and technical colleges do not have adequate funding sources to meet such significant challenges (SREB, 2015).

Findings from the National Center for Education Statistics (1998) suggests that first-generation students are less likely to attain credentials and persist beyond the first

year when specialized support services are unavailable. The need to develop and expand programs that focus on improving first-year academic success for these students is important to not only retention and student development but to keep the student actively engaged and progressing academically (SREB, 2015).

College Readiness

The community and technical college is committed to supporting effective intervention strategies for underprepared students. The passing of Senate Bill 1 in 2009 created a collaboration between secondary and postsecondary educators. This collaboration pushed college readiness to the forefront, increasing the college-bound completion culture in Kentucky.

According to CPE, many Kentucky students who transition to college are not fully prepared for the rigors of postsecondary education. In support of college-readiness guidelines, a report by CCCSE found that 72% of students entering a two-year public institution were underprepared. When examining each ACT subject-area individually, it was found that math was the subject in which the highest number of students were underprepared—59.5% overall; followed by English—51.8%; and Reading—39.2% (Hiemstra, 2006).

Cost-Related Factors & Low Socioeconomic Status

Research shows that the first year of college is the beginning of greater personal independence, greater demands for economic self-sufficiency and money management. This also means, for the 19% of full-time, first-generation students who work more than 30 hours per week while enrolled to fulfill financial obligations—such as rent,

transportation costs, families and college expenses-are more likely to be at a greater risk for low academic performance (Center for Community and Technical College Student Engagement [CCCSE], 2012; Cuseo et al., 2010).

According to CCCSE, 49% of first-generation students lack financial means to afford college costs, making them more likely to have lower incomes and come from low socioeconomic backgrounds. This not only makes them dependent on financial aid, grants and scholarships, but faculty views indicate that first-generation students who face this issue are 73% more likely to withdraw from college (CCCSE, 2012). For the first-generation student, this can also mean additional stress and accumulated debt due to poor money management and misuse of financial aid, grants and scholarships.

First-Generation Familial Support

Another factor that negatively affects first-generation students is their lack of familial support. Approximately 36% of community and technical college students are first-generation, with 17% coming from single family homes (AACC, 2015). For this diverse population of students, pursuing postsecondary education can be viewed as a waste of time by their family and friends, making the process very discouraging to obtain their educational and career goals.

Statistics show that even the 2.3% of families who are supportive are likely not able to assist students with navigating through college or encouraging their academic and social integration on campus due to their own familial conflicts and commitments ("First-generation students," 1998).

The community and technical college student's level of academic and social integration is highly correlated with degree completion; without a solid foundation of support, many first-generation students find themselves at a greater risk of dropping out, making them 68% less likely to persist to degree completion (Attewell, Heil, & Reisel, 2011).

First-Year Academic Performance

Academic preparation and first-year performance play an important role in a student's first-year experience. Several researchers have noted that the more academically and socially involved students are, the more likely they are to interact with other students; become active learners; and achieve their personal and academic goals (Astin, 1984; Mallette & Cabrera, 1991; Nora, 1987; Pascarella & Terenzini, 1980; Terenzini & Pascarella, 1977).

The issue community and technical colleges face is that many first-generation students spend relatively short periods of time on campus, are unaware of the campus resources available to them, and do not feel connected to the college experience. Due to this level of disconnection, 19% of first-generation students' feel unprepared academically and become easily discouraged (CCCSE, 2012).

Further review of the CCCSE Matter of Degrees study in 2012 found that their lack of physical connection with the college negatively affects their academic progress, grades, GPA and first-year performance by 78% (Pascarella et al., 1980; Terenzini et al., 1977).

First-Generation Student's Grades and GPA. After reviewing the literature on first-generation student's grades and GPA, Defreitas and Rinn (2013) suggests that first-generation students have a more difficult time successfully completing college than other students, receiving lower grades and earning fewer academic credits. While the definitive reason why first-generation students have lower first semester grades is due to their lack of academic preparation and socioeconomic status, additional research by Strayhorn (2006) discovered there was no significant difference between first-generation students and their peers in terms of first-year grade point average (GPA).

The use of *first-year experience* courses to promote first-year student success has become central to many efforts in predicting student retention. Strayhorn's (2006) study also found that first-generation students were more committed to their institution and equally capable of succeeding in college when participating in first-year programs and utilizing other support services. In support of first-generation students, Miranda (2011) found that these students when enrolled in first-year courses were more likely to earn higher grades in their other first-year courses as well and were less likely to withdraw during the first-year. Pascarella and Terenzini (2005) conclude that grades earned during the first year of college may well be the single best predictor of student success.

Gender

Community and technical colleges serve approximately 46% of the undergraduate students in the United States, with 36% being first-generation students (AACC, 2015). In a review of longitudinal studies based on gender differences in higher education, it was found that gender is an important contributing factor in predicting academic success and first-year experience outcomes (AACC, 2015; Ackerman, Kanfer, & Beier, 2013; Lundy-Wagner, Veenstra, Orr, Ramirez, Ohland, & Long, 2014; Van Soom & Donche, 2014). Based on the AACC's 2015 community and technical college fast facts, the breakdown of the student body by gender in community and technical colleges in Kentucky constitute 57% women and 43% men.

Further evidence of gender differences found similarities in terms of abilities and vocational interests; but revealed that women are more likely than men to enroll in and graduate from college (Ackerman et al., 2013; Pollard, 2011). In support of gender differences in higher education, females have also shown to be more academically successful and engaged in their college experience than their male counterparts, accounting for roughly 62% of Associate's degrees conferred by degree-granting institutions (NCES, 2012).

Race/Ethnicity

Community and technical colleges are committed to providing low-cost access to postsecondary education for disadvantaged racial/ethnic groups, particularly African Americans and Hispanics. The total enrollment of these two racial/ethnic groups (African Americans-977,863 and Hispanics-1,413,878) comprise respectively 36% of national total enrollment (6,625,141) in 2-year public institutions (NCES, 2014). Based on community and technical college statistics in Kentucky, the percentages are even lower. Disadvantaged racial/ethnic groups only represent 29.7% (African Americans-15.3%; Hispanics-14.4%) of total enrollment at public community and technical colleges (AACC, 2015; Fast facts, n.d.).

A study conducted by Bahr (2008) found that students of disadvantaged racial/ethnic groups (i.e., African Americans and Hispanics) are more likely to be subjected to negative stereotypes regarding academic ability. To combat these negative stereotypes, community and technical colleges that have high minority enrollments are more likely to incorporate more retention-specific programs for disadvantaged racial/ethnic groups.

Learning Environments at Community and Technical Colleges

Learning environments within community and technical colleges proactively embrace a systematic process of mentoring, coaching and advising that support a community of first-year, at-risk students. Research shows that the most beneficial learning models are those that focus on creating learning environments that allow the student to build knowledge through transformation of experience. These learning environments produce the most effective results when supported by a systematic process committed to academic success.

In FYE courses, experiential learning serves entirely for the purpose of fully attracting and optimizing student talent by creating atmospheres that encompass growth, innovation, productive effort and collective intelligence from the students (Wiseman et al., 2010). Additional research found that experiential models, when partnered with academic courses that focus on transformational learning and improving retention serve as the best arenas to change the way first-generation students learn, assimilate knowledge, and apply new skills to reflect on and discuss their learning experience (Brock, 2010; Grabove, 1997; Mezirow, 1997; Mueller-Joseph, 2007).

Learning Theories in Community and Technical Colleges

During the first year, students develop an empowered sense of self that allows them to develop a more critical understanding of influences on their academic success and commitment to college. As they adopt more functional academic strategies, learning how to successfully utilize college resources, students learn how to create knowledge from experience rather than instruction alone (Bergsteiner et al., 2010;

Hodge, 2014). In a seminal review of experiential and transformational learning fields, Bergsteiner et al. (2010), Grabove (1997), Hodge (2014), Merriam (2004) and Mezirow (1997), identified transformational and experiential learning as a cognitive process that requires a collaborative effort through the quality of instruction, professional learning and connectedness between the student and the instructor.

Further review of the literature on transformational and experiential processes in community and technical colleges found that FYE courses optimize three constructs of college readiness-academic (the students effort to achieve satisfactory or superior levels of academic performance); social (the students effort to enhance the quality and depth of interpersonal relationships, leadership skills, and civic engagement); and personal (the students effort to move between modes of action, reflection, feeling, and thinking) (Bergsteiner et al., 2010; Cuseo, n.d.; Merriam, 2004; Mezirow, 1997). In FYE courses, first-year students participate in transformative, experiential learning communities that place strong emphasis on critical inquiry, frequent writing, information literacy and collaborative learning. In these learning environments, each student is introduced to each construct, but their success in developing each construct relies heavily on the students own investment and ownership.

Kolb's Experiential Learning Theory

Kolb's (1984) experiential learning theory (KELT) is a learner-centered cycle of four processes that assesses the knowledge students have acquired during the learning process. The KELT stages of learning require the student to reflect at four different levels of learned experience: concrete experience (the process during which the student discusses the knowledge obtained); reflection and observation of the experience (the process during which the student explains how the knowledge was acquired); abstract concepts drawn from the experience (the process during which the student provides evidence of comprehension in relation to their experience); and active experimentation (the process during which the student demonstrates the ability to generalize learning to new situations and environments) (Bergsteiner et al., 2010; Murphy, 2007).

Kolb's (1984) theory posits that experiential learning conceptualizes the vision and goals community and technical colleges have for a meaningful first-year experience. The concept of experiential learning in *first-year experience* courses is to add depth of understanding and breadth of demonstrated knowledge to the students learning experience during the first year. As the student progresses through each level of KELT, they learn how to effectively plan and make decisions; learn deeply and remember longer; think critically and creatively; and communicate and relate effectively with others (FYE achieving academic success, n.d.).

Mezirow's Transformational Learning Theory

The community and technical college focuses on providing a learning community that fosters the needs of the diverse population of students enrolled. Programs, such as the *first-year experience*, create a systematic process to afford first-year, at-risk students the opportunity to grow intellectually, gain a fundamental understanding of college, learn about the valuable resources available to them and have meaningful involvement in the learning process.

Unlike Kolb's (1984) experiential learning model, which focuses solely on the learning experience, Mezirow's (1997) transformational learning theory (MTLT) focuses on holistically transforming the student as they progress through and complete their college experience. The concept of the theory embraces a process that involves strengthening the student's critical reflective thought (viewed as the understanding, skills and disposition required to share learned experiences); developing self-efficacy (viewed as the students increased self-confidence, self-awareness and commitment to the college); and adding discourse (viewed as how one understands or arrives at a best judgment regarding a belief).

A review of scholarly studies on MTLT discovered that when students are placed in learning communities that require them to reflect on their experiences and become critically reflective of their beliefs, they are provided with a more distinctive and powerful learning experience. When these experiences are paired with effective instructional strategies, such as-teambuilding exercises, critical thinking and reflective exercises, applied applications, and groupthink exercises-transformational learning

environments provide the opportunity for first-year, at-risk students to touch all of the bases during the learning process, becoming more actively engaged as a result (Grabove, 1997; Hodge, 2014; Merriam, 2004; Mezirow, 1997).

Retention Theories for First-Year Academic Success

There is a significant body of research about first-year student success and the importance of incorporating effective retention strategies to retain first-year students. Recent research and interest in effective retention strategies found that first-year, at-risk students who had access to services, programs and resources to assist with academic and social integration, were more engaged and more likely to persist from freshman to sophomore year (Grabove, 1997; Hodge, 2014; Merriam, 2004; Mezirow, 1997). In support of effective retention strategies, Tinto's (2009) retention model suggests that institutions should coordinate effective retention principles with effective retention practices to insure a systematic, campus-wide approach to student retention.

The model recommends that institutions practice the following principles of effective retention:

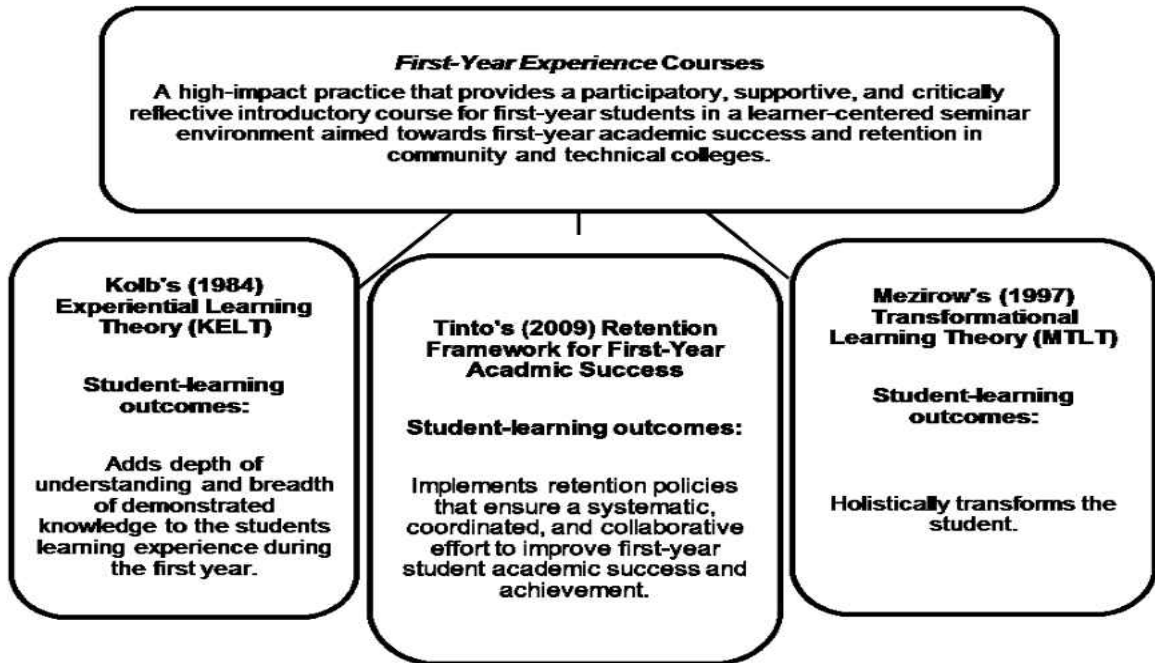
1. Institutional commitment to students must focus on putting student welfare ahead of other institutional goals;
2. Educational commitment must focus on developing effective retention programs committed to the education of all students; and
3. Social and intellectual commitment must focus on developing a sense of belonging and community that will allow all students to become fully integrated in the institution.

According to the National High School Center, the United States ranks 14th in college graduation rates among developed nations. This mainly attributes to first-year student disengagement. Tinto's (n.d.) model of retention provides a framework to ensure successful engagement the first-year that recommends institutions provide: (1) *first-year experience* courses (2) transition assistance-to assist with properly matching the student's postsecondary goals to their Individual Education Plan; (3) early contact and community building-to foster a sense of belonging and introduce programs, services, and resources that will facilitate first-year success; (4) academic involvement and support-to assist with the academic and social integration for first-year students; (5) monitoring and early warning-to assist with identifying students who are at-risk of dropping out; and (6) counseling and advising-to assist students with formulating academic plans and making decisions that will benefit their academic, personal, and social development.

Retention models focus on using specific interventions to help students bond with the institution, seeking to clarify why intervention plays such an important role in creating a bond between the student and the institution. Studies indicate that when institutions focus on holistically transforming first-year students, the goal of college completion and the level of institutional commitment, must be congruent between the student and the institution (Cabrera et al., 1993; Tinto's theory, n.d.; Tinto, 2009; Voigt et al., 2008).

As community and technical colleges concentrate their energies more towards developing student-centered, retention-driven institutions, they are better prepared to provide a systematic, coordinated and collaborative framework that leads to life-long student success and achievement (Red River College, n.d.; Tinto's theory, n.d.; Voigt et al., 2008). One of the most difficult areas to address with first-year, at-risk students involves creating interventions designed to improve their academic integration, institutional commitment and institutional fit. A review of literature discovered that retention theories for first-year academic success are best applied in college settings in which (1) expectations for student success are clear and high; (2) intervention strategies focus on the importance of the teaching and learning process; and (3) student expectations and levels of satisfaction are monitored on a systematic basis (Red River College, n.d.; Voigt et al., 2008).

Conceptual Framework for First-Year Student Academic Success



Kolb's Experiential Learning Theory (KELT)

Concrete: Knowledge obtained	Reflection and Observation: Knowledge acquired	Abstract Concepts: Comprehension of experience	Active Experimentation: Generalize learning
--	--	--	---

Mezirow's Transformational Learning Theory (MTLT)

Critical Reflective Thought: Understanding, skills and disposition of learned experience	Self-Efficacy: Increased self-confidence and self-awareness of learned experience	Discourse: How one understands the learned experience
--	---	---

Tinto's Retention Framework

Transition Assistance Early Contact and Community Building Academic Involvement and Support	Monitoring and Early Warning Counseling Advising
--	---

Figure 1. Conceptual model of *first-year experience* courses in community and technical colleges. This figure illustrates the key concepts of Kolb's experiential theory, Mezirow's transformational theory and Tinto's retention framework when applied in *first-year experience* courses at public community and technical colleges.

The conceptual framework around which this study focuses is provided in Figure 1. The diagram suggests that the student-learning outcomes of *first-year experience* courses are directly influenced by the type of learning environments and effective retention policies practiced in these learner-centered seminars aimed towards first-year academic success and retention in community and technical colleges.

The framework of the *first-year experience* course is designed to promote: (1) skill development (critical reading and thinking, writing and study habits); (2) a sense of connectedness and engagement on the campus by incorporating co-curricular events and extended orientation experiences; (3) foster intellectual community; (4) inculcate certain values; and (5) introduce the aims of a college education through a seminar experience (Anderson et al., 2002; Grabove, 1997; Hodge, 2014; Merriam, 2004; Mezirow, 1997; Smith et al., 2008).

Central themes in research literature support that learner-centered environments that are participatory, supportive and challenging provide a seamless and integrated educational foundation when taught in experiential and transformational learning environments. Based on data from the National Resource Center for the First-Year Experience and Students in Transition, FYE courses focus on: (1) developing academic skills (54.6%); (2) developing a connection with the institution (50.2%); and (3) providing an orientation to various campus resources and services (47.6%).

These courses, centered on critically reflective conversations, activities and readings, provide an educated framework to help students make a smooth transition to college; equipping them with strategies to promote academic success and personal development in college and beyond (Anderson et al., 2002; Grabove, 1997; Hodge, 2014; Merriam, 2004; Mezirow, 1997; Smith et al., 2008).

First-Year Experience Courses as High-Impact Practices

Research from the National Resource Center for the First-Year Experience and Students in Transition found that over 90% of institutions incorporated high-impact practices (HIP), such as *first-year experience* courses, into their first-year curriculum. *First-year experience* courses are one of the most highest-quality, highly-effective, high-impact practices provided to students in higher education.

HIP's provide first-generation students with valuable learning experiences that will assist with their academic preparation and first-year performance. These learning practices provide active learning experimentation for the student which allows them to converge learned experiences that will contribute to the student's learning process.

The central concepts evolving from FYE courses not only prepare the student academically, but they also create effective retention interventions that improve both the student's educational commitment and the institution's commitment to life-long student success and achievement (Association of American Colleges and Universities [AAC&U], 2008; *2012-2013 national survey of first-year seminars*, n.d.).

First-Generation Students at Community and Technical Colleges

A review of literature on first-year students found that the top three reasons students attend community and technical colleges are because of affordability-70.9%; location-58.3%; and class size-50.4% (First-year engagement, 2014). Supporting first-generation students is a priority that community and technical colleges identify as the most crucial step to first-year success. A recent study by Arnett (2015) argues that the deficit of knowledge for first-generation students around access and opportunity should mean more to institutions and administrators than statistics and numbers. Just talking about the disparities is meaningless, if we fail to hear from real voices who are actually affected by the disparities. Studies show that the majority of first-generation students in community and technical colleges are usually low socioeconomic students classified as educationally disadvantaged based on family income, parental education level, parental occupation, and social status in the community (Lam, 2014).

There is no doubt that the first year serves as a critical stage of educational development for the first-generation student, marking a time when the student experiences the greatest amount of learning and personal growth (Arnett, 2015; Cho and Karp, 2013; Cuseo et al, 2010; Stout, 2006). Not only is this a critical stage for development, it also presents many challenges for the first-generation student. Arnett (2015) points out that the misunderstanding of the cost of college and the financial aid process greatly affects the likelihood of their success. Many first-generation students work full-time jobs, care for a family and spend relatively short periods of time on campus.

First-Year Student Support Systems at Community and Technical Colleges

As a result of these barriers, many support systems have been developed at community and technical colleges to assist the first-generation student with managing these barriers and staying on track to completion. In an effort to improve the first-year student experience, many colleges create campus support and *first-year experience* courses to assist with fostering academic success (Bui, 2002). These programs are designed with a commitment to student success to orient students toward college, emphasizing an investment in the students' goals, their learning aspirations and their success. Such programs are required to assist with matriculation, retention and persistence through successful completion of the first year.

According to Bui (2002), the top reasons first-year students fail to successfully complete their first year of college include academic preparation and first-year performance. Academic preparation and first-year performance are key elements for first-year student retention. Several researchers have noted that the more academically and socially involved students are, the more likely they are to interact with other students; become active learners; and achieve their personal and academic goals (Astin, 1984; Mallette et al., 1991; Nora, 1987; Pascarella et al., 1980; Terenzini et al., 1977).

The issue community and technical colleges face is that many first-year, at-risk students do not feel connected to the college experience. Institutions have to get in the habit of adopting the mindset that students don't know what they don't know, making the necessary adjustments to fully understand the student to help them fulfill their educational and career goals (Arnett, 2015). This requires administrators, faculty and staff to become actively engaged in the quality of student life and learning process early on to improve campus programs and services that will ensure overall institutional quality, effectiveness and student success (Voigt et al., 2008).

Purpose of First-Year Experience Courses in Community and Technical Colleges

The *2012-2013 national survey of first-year seminars* discovered that first-year courses in community and technical colleges specifically target those students who have been deemed academically underprepared. With only 38.3% of community and technical colleges requiring the first-year seminar nationally, research from this study will justify the need for all community and technical colleges to offer at least one semester of the first-year experience to all first-year, at-risk students. The skills learned in these courses are more than just college skills, they are life skills.

The purpose of the *first-year experience* course is to promote academic, interpersonal and intrapersonal success through: “effective planning and decision making, learning deeply and remembering longer, thinking critically and creatively, managing time and money responsibly, communicating and relating effectively with others and maintaining health and wellness (FYE Achieving Academic Success, n.d.)”

Kentucky's First-Year Student Intervention Strategies

To assist with improving college-readiness standards and to ensure that stronger academic and social supports are provided for first-year academic success, public community and technical colleges in Kentucky have partnered with Kentucky's 15 to Finish campaign. Kentucky's 15 to Finish Campaign encourages Kentucky college students to graduate on time by completing at least 15 credits a semester. Research from the 15 to Finish campaign found that 75% of Kentucky's first-time, full-time freshman take less than 15 credits per semester and by sophomore year are not on track to graduate on time.

Additional research found that when students do not complete their general study requirements within two years, they add an estimated cost of \$4,320 in tuition expenses at public community and technical colleges and an average of \$8,400 a year at state universities. The Kentucky Council on Postsecondary Education (CPE) predicts that by 2020, 56% of Kentucky's jobs will require postsecondary education. The rationale behind this initiative is to not only increase the likelihood of graduation for full-time, first-year students, but to lower costs for students, the state and taxpayers (15 to Finish Overview, n.d.).

The initiative is modelled after a Hawaii campaign that experienced a 14.7% increase in one year for students who completed 15 credits a semester. Hawaii's comprehensive strategy serves as an exemplar to ensuring first-year student success by focusing on improving on-time graduate rates at two-year and four-year universities. The initiative has been adopted at colleges and universities in 20 states (UH's 15 to Finish, 2014). The framework measures student success and persistence by academic preparation scores and the 15 credit hour break point.

To promote the model more efficiently in college settings, people and resources were assigned to strengthen student's interpersonal interactions with peers and faculty, connect with campus resources that best meet their needs and get actively involved in the campus community, learning process, organizations and activities. Data from the 15 to Finish Campaign found that community and technical college students who complete 30 credits by the end of their freshman year are over 10 times more likely to graduate within two years as compared to those who complete less than 30 (Impact of enrolling, 2013).

As a result of Hawaii's model, Kentucky's 15 to Finish Campaign has assisted community and technical colleges with designing specific programs, like *first-year experience* courses, to support first-year student success and degree completion in two years or less. Literature suggests that the first year signifies a time when students develop a strong connection with their institutions; learning about strategies, behaviors and college resources that will optimize their personal and academic success (Cuseo et al., 2010; Lorenzetti, 2013; Mayo, 2013; Redmond et al., 2013).

The Need for First-Year Experience Courses in Kentucky

First-year experience courses have been part of the academic curriculum for over 100 years, beginning with the first freshman seminar offered in 1882 at Lee College in Kentucky. Throughout the history of first-year seminars in American college settings, the popularity and effectiveness of the programs began to fluctuate in the early 1960's, regaining purpose and rebirth in the early 1970's due to a push for student support initiatives on campuses to increase student retention, encourage students to develop more positive attitudes towards the campus, assist students with understanding the purpose of higher education and improve teaching in undergraduate programs (History of the first university seminar, n.d.).

Since 1988, the National Resource Center for the First-Year Experience and Students in Transition have provided the most comprehensive national picture of *first-year experience* courses, evaluating curricular interventions to support students in the first year of college. To measure types of first year seminars, characteristics of students, teaching, administration, objectives, assessment and modules on high-impact practices, the National Resource Center conducts a triennial national survey. Out of the 3,753 institutions invited to participate triennially, only 87.3% offer some type of *first-year experience* course, leaving 42.5% requiring all students to take a *first-year experience* course as part of their degree requirements.

Nationally, first-year programs are 93% more effective when compared to other high-impact educational practices such as: early warning (91%), undergraduate research (90%), first-year learning communities (83%), service-learning (80%), pre-term

orientation (44%) and summer bridge programs (41%) (Fernandez, Murphy, Keup, & O'Donnell, 2014). Many institutions in Kentucky have adopted high-impact, *first-year experience* courses, to promote higher levels of student success based on the national success of the course. Research shows that when *first-year experience* courses are integrated into the classroom and continually evaluated to measure their effectiveness in college settings, they have been known to have statistically significant effects on developing a connection with the campus (44.9%), providing an orientation to campus resources and services (37.8%), and developing academic skills (36.3%) (Keup & Skipper, 2014).

Further research concluded that while these course have proven to be effective in aligning institutional goals with strategic enrollment management initiatives, only 60% of institutions regularly assess their *first-year experience* courses. As high-impact educational practices like *first-year experience* courses become the pursuit of 21st century learning outcomes, direct assessment of student outcomes in these courses are required to improve research of *first-year experience* courses, enhance curriculum development and provide evidence of comprehensive approaches to improve the first year (Fernandez et al., 2014; Keup et al., 2014; Young & Keup, 2014).

The need for first-year programs in community and technical colleges in Kentucky serve as an integral part of student-centered academic and co-curricular efforts within the college. The role of first-year programs places great emphasis on retaining the student; but as research continues to evolve around first-year programs, emerging evidence has shown a greater push to adequately capture progress and

achievement of student-learning outcomes in these programs (Keup, 2013). These courses are designed specifically to develop students' intellectual and practical competencies through intellectual experiences, integrated learning communities, writing-intensive courses, collaborative assignments and projects, undergraduate research, intercultural learning, service and community-based learning, internships and capstone projects (Fernandez et al., 2014).

These teaching and learning practices have been shown to be beneficial towards increasing retention and first-year academic success for a variety of student populations, specifically at-risk student populations, in 4-year institutions in Kentucky; but not as commonly in community and technical institutions (Keup et al., 2014). As community and technical colleges strive to provide a more systematic process to meet the challenging demand of 21st century learning outcomes for first-year, at-risk students, there is a great need for these courses and research to support the effectiveness of these programs in community and technical college settings in Kentucky.

Benefits of First-Year Experience Courses in Kentucky

First-year programs have proven to be one of the most powerful predictors of first-year student success and retention. The framework and innovative pedagogy of the course provide community and technical colleges an opportunity to educate the whole student. A recent study by Ishler et al. (n.d.) found that community and technical college students who completed a first-year program with a C or better, were more likely to be retained and persist to graduation than students who received lower than a

C in the course. Further analysis of the Ishler et al. (n.d.) study concludes that when community and technical colleges provide learning communities that allow students to learn more, they develop a greater sense of success, satisfaction and learning altogether. The benefits of first-year programs in community and technical colleges provides an integrative learning environment that allows them to promote the highest-quality, first-year experience program for first-year, at-risk students.

Effective *first-year experience* courses are committed to ensuring first-year students acquire sufficient knowledge and skills to meet the academic demands of the institution and degree attainment. Upon completion of *first-year experience* courses, national standards believe the student will successfully:

1. Foster academic success by adapting and applying academic strategies to their courses and learning experiences;
2. Demonstrate improved self-confidence and increased commitment for achieving academic success;
3. Demonstrate an understanding of campus terms and processes;
4. Identify personal skills and interests that complement career choice;
5. Locate and use campus resources;
6. Apply course concepts such as time management, stress management, study skills and learning styles in the development of his/her own college success plan; and

7. Understand the importance of working harmoniously with people of diverse backgrounds to build positive relationships with peers, staff and faculty (Goals, learning outcomes, n.d.).

The importance of continuous assessment of the effectiveness of first-year programs in community and technical colleges in Kentucky identifies how these programs and innovative pedagogies align with the institutional mission and retention policies for student success.

First-year programs present multiple perspectives of student success in the community and technical college setting because they serve such a diverse population of students, requiring a comprehensive, systematic approach to student success. Research by Keup (2013) identifies first-year programs as a holistic initiative encompassing all aspects of first year student experiences. The holistic development of the first-year student helps to develop a rubric to assess the effectiveness of these programs. Assessment measurements seek to connect *first-year experience* to retention; evaluate student-learning outcomes and effective use and transferability of high-impact practices; effectively measure assessment and accountability for student performance; and ensure integration across *first-year experience* programs to assess the program's effectiveness in community and technical college settings (Keup, 2013).

First-Year Experience Pedagogy at Community and Technical Colleges

Public community and technical colleges in Kentucky currently count their first-year experience course: *Achieving Academic Success* (FYE105), as a mandated elective course, weighted as a three-credit hour, letter-graded course for first-year and transfer students. The curriculum for all FYE105 courses in public community and technical colleges allow first-year, at-risk students to be part of a diverse learning community engaged in both curricular and co-curricular life on campus. Students are presented with the opportunity to develop academic plans that will align with the students' career and life goals.

The course is a 16-week semester course offered in the spring and fall semesters. The course uses the following text: *Thriving in the community and technical college and beyond: Strategies for academic and personal development*, 2nd edition.

Course content is centered on the following topics:

1. Campus information/orientation to college;
2. Strategies for academic success;
3. Life skills; and
4. Academic and career planning.

To ensure the success of first-year, at-risk students in public community and technical colleges, faculty who teach FYE105 are required to attend two professional development and advising trainings per year. The purpose of these mandatory trainings are so administrators and faculty stay abreast of best practices, share methodologies to help students learn better and evaluate associated resources and surveys to support

FYE105 outcomes. During these trainings, faculty are encouraged to share with the campus community recommendations to improve the rigor of FYE105, goals for the course and suggestions on how to better align the curriculum to make learning outcomes more measurable. A generic FYE105 syllabus can be viewed in Appendix B.

Several studies conclude that faculty have more influence on students in the first year than anyone else, so they must become actively engaged in first-year student success to address the students' affective and cognitive needs (Mayo, 2013; Upcraft, Gardner, & Barefoot; 2005; Voigt et al., 2008). The goal of each community and technical college in Kentucky is to promote the educational and personal development of their students by ensuring that faculty focus on the following outcomes:

- a) Promote excellence in teaching and learning;
- b) Increase student access and success;
- c) Cultivate an inclusive learning community;
- d) Enhance strategies for economic, workforce and community development; and
- e) Build resources for an effective and sustainable college ("Strategic plan 2010-2016," n.d.).

As community and technical colleges strive to bridge access and opportunity for first-year students, *first-year experience* courses will continue to provide a systematic process that will conceptualize the goals for a meaningful first-year experience.

The goal of these programs is to provide first-year students every chance to succeed. FYE105 is committed to promoting intellectual development, improving first-

year student performance and increasing first-year academic success in community and technical colleges (Mayo, 2013; Upcraft et al., 2005; Voigt et al., 2008). The benefits first-year, at-risk students receive from FYE105 courses will provide a strong base of knowledge for *first-year experience* courses across the state, guiding additional research on the ability of these programs to achieve the outcomes for which they are intended.

CHAPTER 3

METHODOLOGY

The purpose of this study was to compare the first-year academic success of students served in *first-year experience* courses in public community and technical colleges in Kentucky compared to students not participating in such courses in the same colleges. The reason for selecting public community and technical colleges in Kentucky for this research study was the benefits of *first-year experience* courses are understudied in community and technical college settings. According to Cuseo (n.d.), student success in higher education can be viewed as a favorable or desirable student outcome based on the increased likelihood that first-year students will achieve satisfactory levels of academic performance, becoming holistically developed through intellectual, emotional, social, ethical, physical and spiritual development.

One of the greatest strengths of the community and technical college is that it can promote high levels of student engagement, creating opportunities for improved student development, support, retention and quality of life (McClenney, 2007). The importance of providing such a high-quality, retention-driven program is to create institutional cultures that align with the student's career and life goals. A review of studies on student outcomes found that student outcomes depend highly on the quality of instruction, learning environment and connectedness between the institution and student during the first year (Johnson-Bailey et al., 2006; Kose & Lim, 2011; Thoonen, Slegers, Oort, Peetsma, & Geijsel, 2011).

Student retention and credit accumulation in community and technical colleges during the first year serve as progressive measures of student success and outcomes for state accountability degree completion initiatives, target improvements and to compare the institution's success in educating students with similar types of institutions providing similar programs and services (Moltz, 2009). The theoretical perspective applied Kolb (1984), Mezirow (1997) and Tinto's (n.d.) learner-centered principles to these courses intending to provide a seamless and integrated educational experience that serves entirely for the purpose of improving student retention, aligning educational practices and creating effective retention policies.

The reason for choosing a quantitative study was to conduct statistical analyses on GPA, retention and credit hour accumulation at the end of the first year so that generalizations could be drawn about the effectiveness of *first-year experience* courses. Several studies suggest that *first-year experience* courses allow students to fully adapt course-related knowledge and skills through interactive and transformative learning environments (Inderbitzin et al., 2008; Mayo, 2013; McDonald et al., 2012; Mueller-Joseph, 2007). These environments, defined by the theoretical steps learners undergo during their educational experience, change the way first-year students look at the world while learning new skills to demonstrate cognitive sophistication (Brock, 2010; McCullough et al., 2007).

By analyzing the student populations that enroll in *first-year experience* courses at community and technical colleges, valuable information was attained to help guide program development for first-year student academic success. In addition, this study also will provide data on the validity of the course, the need for the course in postsecondary education, and the impact this course has on academic success and retention in community and technical colleges.

The central question guiding this study is:

- Controlling for student characteristics, are there differences in the academic success of first-year, at-risk students at community and technical colleges-served in *first-year experience* courses-compared to students not participating in such courses?

Context of the Study

The Kentucky Community and Technical College System (KCTCS) is one of the fastest-growing, two-year community and technical college systems in the nation. With an empowering vision to create a comprehensive community and technical college system recognized as the nation's best, it is the newest postsecondary education institution, created by the Kentucky Postsecondary Education Improvement Act of 1997 (House Bill 1).

The system is comprised of a network that joined 14 established community colleges and 15 postsecondary technical institutions first into districts and later into 16, two-year comprehensive colleges, operating on more than 70 campuses across the

commonwealth. The 16 colleges serve close to eighty-four thousand students. A snapshot of the 16 locations and enrollment at each location is provided in Appendix A (About KCTCS, n.d.).

The college system is accredited by the Southern Association of Colleges and Schools Commission on Colleges (SACS/COC) to award the associate degree. This accreditation is important because it assures KCTCS students receive an education that meets the high standards of an independent accrediting organization. KCTCS offers certificates, some as short as 6 weeks, and diplomas as well as two-year associate degrees in 700 credit program offerings. The most popular area of study is the baccalaureate transfer program, which allows a student to earn an associate degree at a KCTCS college and transfer to a public or private four-year college or university in Kentucky (Institutional accreditation, n.d.).

FYE105 Courses in Community and Technical Colleges in Kentucky

Student success in public community and technical colleges in Kentucky is measured by the freshman cohort one-year retention rate, GPA, and credits earned, all of which influence the three-year graduation rate. In 2013, public community and technical colleges in Kentucky implemented a *first-year experience* course, Achieving Academic Success (FYE105), to empower first-year students to persist to graduation. The first-year course is open to all first-year students with fewer than 30 semester hours earned.

The course is designed to enhance the first-year student's academic and social integration into college. The course aims to create a strong sense of community during the first-year, while building student/faculty rapport, promoting peer-to-peer interactions and equipping students with learning strategies for academic success. The goal of FYE105 is to improve the student achievement rate of full-time, first-time degree-seeking students (Student achievement, n.d.).

Study

This research study was conducted on roughly 2,000 first-year students enrolled full-time during the 2014-2015 fall academic year. First-year students in public community and technical colleges are primarily a mixture of traditional and non-traditional students enrolled in their first or second semester, having completed less than 30 semester hours. The rationale for examining this particular time frame is because it represents the second-year of data collection for *first-year experience* courses at public community and technical colleges in Kentucky.

Assessment of student measures of success and outcomes will yield valuable insight into the effectiveness of *first-year experience* courses as measured by GPA, credits earned and retention rates. The unit of analyses is student level progress at a community and technical college that meet the above requirements for first-year students enrolled.

Research Design and Analysis

This study employed a causal comparative design. Specifically, this study utilized an Analysis of Covariance (ANCOVA). Covariates are variables that are correlated with the dependent variable and are included before the start of the experiment to control or adjust the results for differences existing among the groups compared. This excludes variance in the dependent variable attributable to the covariates, which enables the study to focus on the variance explained in the dependent variable by group differences. Alpha was set at .05 to interpret statistical significance.

The statistical assumptions for an Analysis of Covariance (ANCOVA) include all of the assumptions associated with ANOVA, plus three assumptions pertaining to covariate variable data used to make adjustments and increase power (Huck & Cormier, 1996).

Assumptions for ANCOVA that are held in common with ANOVA include:

1. Random samples;
2. Normally distributed populations;
3. Equal population variances; and
4. Independence of observations.

Assumptions unique to ANCOVA that must be met if the analysis is to function appropriately include (Huck & Cormier, 1996, p. 497-498):

1. The independent variable should not affect the covariate variable.
2. Homogeneity of within-group correlations, meaning the correlation between the covariate and dependent variables is the same within each of the populations in the study.

3. Linearity, stipulating that the within-group relationship between the covariate and dependent variables should be linear.

All of the elements of this study were examined to insure that they comply with the assumptions for ANOVA/ANCOVA as well as for the assumptions unique to ANCOVA. Alpha will be set at the .05 level. Descriptive statistics include means and cross tabulations also are reported.

Sample

This sample consisted of individuals who belong to one of two cohorts, those served in *first-year experience* courses and those not enrolling in these courses. Existing data were obtained from readily available, public community and technical college student databases. The student population assessed consists of diverse backgrounds based on current enrollment status, first-generation status, gender, age, socioeconomic status, college-readiness, race and ethnicity. Only student data from public community and technical colleges in Kentucky were utilized for this study. Cohort data on first-year experience students beginning in the 2014-2015 academic year were analyzed.

These students included non-traditional students, age 25 or older, classified as first-year freshmen. Of the 2,000 students selected, only 1,231 students were used for the study since the latter included no missing data. Table 3.1 provides a frequency distribution of the students who participated in FYE 105 and those students who did not participate in FYE 105.

Table 3.1
Frequency Distribution of First-Year Experience Participants

		Frequency	Percent
Valid	No	473	38.4
	Yes	758	61.6
Total		1231	100.0

The sample consisted of 758 first-year participants (61.6%) and 473 non-participants (38.4%). This distribution of students was typical of the community and technical college since many of today's first-year, at-risk students live off campus and are less likely to have contact with student affairs and residence halls.

Table 3.2 provides a description of the gender breakdown of the students included in the study. The first-year sample consisted of 411 females (54.3%) and 346 males (45.7%). The non-first-year sample consisted of 256 females (54.1%) and 217 males (45.9%). This gender breakdown of the sample was consistent with the gender breakdown of public community and technical colleges in Kentucky.

Table 3.2
Gender Breakdown of First-Year Participants

			First Year Experience 2014		Total
			No	Yes	
Gender	Female	Count	256	411	667
		% within First Year Experience 2014	54.1%	54.3%	54.2%
	Male	Count	217	346	563
		% within First Year Experience 2014	45.9%	45.7%	45.8%
Total		Count	473	757	1230
		% within First Year Experience 2014	100.0%	100.0%	100.0%

The age of the student was evaluated to determine if more non-traditional students than traditional students participated in FYE105. The age breakdown of the sample is shown in Table 3.3. The majority of the students were not non-traditional with 639 students (84.3%) belonging to the first-year group and 393 students (83.1%) not belonging to the first-year group. Of the sample, 119 students (15.7%) were first-year participants and 80 students (16.9%) were non-participants.

Table 3.3
Age Breakdown of First-Year Participants

		First Year Experience 2014		Total	
		No	Yes		
Non-Traditional Student (25 or older)	No	Count	393	639	1032
		% within First Year Experience 2014	83.1%	84.3%	83.8%
	Yes	Count	80	119	199
		% within First Year Experience 2014	16.9%	15.7%	16.2%
Total		Count	473	758	1231
		% within First Year Experience 2014	100.0%	100.0%	100.0%

Further analysis of the age of students determined that the average age of first-year participants was 22, with the average age of non-participants being 22.32. The student's average age is shown in Table 3.4.

Table 3.4
Mean Age of First-Year Participants

First Year Experience 2014	Mean	N	Std. Deviation
No	22.32	473	6.534
Yes	22.00	758	5.827
Total	22.12	1231	6.108

The student's racial minority status was derived from college records. The results of the racial minority status summary are shown in Table 3.5.

Table 3.5
Crosstabs: Racial Minority

			First Year Experience 2014		Total
			No	Yes	
Racial Minority	White	Count	376	539	915
		% within First Year Experience 2014	80.0%	71.4%	74.7%
	Non-White	Count	94	216	310
		% within First Year Experience 2014	20.0%	28.6%	25.3%
Total		Count	470	755	1225
		% within First Year Experience 2014	100.0%	100.0%	100.0%

Of the 1,231 students in the study, 71.4% (n=539) of the first-year sample were white and 28.6% (n=216) were non-white. Of those students not participating in FYE105, 80% (n=376) were white and 20% (n=94) were non-white. The racial minority background was similar to what is found at KCTCS colleges in Kentucky.

Data Collection Procedures

Several data collection sources were used to assess the effectiveness of *first-year experience* courses. Data for the study were obtained from records maintained by public community and technical college's Institutional, Planning, Research and Effectiveness Department (IPRE) to measure: socioeconomic status; gender; race; ethnicity; number of credit hours at the end of the first year; GPA at the end of the first year; and retention at the end of the first year.

The IPRE Department identified those students currently enrolled in FYE105 by their Student ID numbers. To respect the confidentiality of the participants and the sites for research, each student ID was replaced with a unique identifier to protect the student's identity and public community and technical college affiliation. All data received were imported into IBM SPSS Statistics and Microsoft Excel for analysis.

Variables in the Study

A careful review of the literature found that many variables influence the academic success and retention of first-year students (Bui, 2002; Hodge, 2014; Isler et al., 2005; Smith et al., 2008; Tinto's theory, n.d.; Voigt et al., 2008). The theoretical frameworks driving this study strongly support the following variables being examined: pre-college entry characteristics (i.e., socioeconomic status; age, first-generation status, college-readiness; race; and ethnicity); program participation in FYE105; and first-year student academic outcomes (i.e., number of credit hours at the end of the first year; first-year GPA; and first-year retention rates).

Any student classified as dual credit or transfer with more than 30 credit hours accumulated was excluded from the study. For purposes of this study, “Pell eligibility” is used as a proxy for socioeconomic status (SES).

The independent variable indicates whether students participated in *first-year experience* courses. Participants were coded as 1, and non-participants were coded as 0. The following variables are the dependent variables: credit hours at the end of the first year was coded as a continuous variable; GPA at the end of the first year was coded as follows: 0.0-1=1; 1.1-2=2; 2.1-3=3; 3.1-4.0=4; and, freshman-to-sophomore retention rates at the end of the first year were identified as: yes/retained=1; no/not retained=0.

Pre-college entry characteristics. The 2008 study by Fike and Fike found that while many characteristics play a role in first-year student retention, input, output and environmental data such as socioeconomic status, credit hours completed, grades, GPA, student ability and the course environment, more likely predicted the retention of first-year students. That study helped inform the selection of covariates to be used in this research. Specifically, low socioeconomic status was measured by Pell Grant eligibility (0=No, 1=Yes). Other covariates included gender, first-generation status, non-traditional student status, and college-readiness scores.

Delimitations and Limitations

This study was delimited to a single case study of first-year students attending only public community and technical colleges in Kentucky. The period studied was the first 12 months of the pilot program of FYE105. The study investigated a specific cohort during their first-year of studies at community and technical colleges, and findings cannot be generalized broadly beyond one year following initial enrollment.

There are several limitations of this study that may have affected student success and outcomes: (1) the students' instructor's style of teaching; (2) the level of faculty interaction with the student in the learning environment; and (3) familial and work-related commitments could negatively affect GPA. Another limitation is that the rigorous academic standards of *first-year experience* courses may present barriers for success for low socioeconomic and minority students who often have difficulty navigating the challenges of rigorous courses. Finally, this quantitative research study does not provide the researcher with the participants' perceived application of skills learned in the FYE105 courses.

CHAPTER 4

RESULTS

First-year students with less than 30 credit hours attending KCTCS colleges during the 2014 academic year were encouraged to take *first-year experience* courses as during their first two semesters attending KCTCS colleges. The target population for this research study was composed of freshman students participating in the course compared to students not participating in the same course in the same public community and technical colleges across the Bluegrass Region. Roughly 2,000 students were selected from the 2014-2015 fall academic year for this quantitative research study.

The student population assessed consisted of diverse backgrounds of individuals based on: pre-college entry characteristics (i.e., socioeconomic status; gender, age, first-generation status, college-readiness; race; and ethnicity); and program participation in FYE105. The following dependent variables were evaluated to operationalize student academic success: (1) number of credit hours successfully completed at the end of the first year; (2) first-year retention rates; and (3) first-year GPA. An assumption of FYE 105 was that students who successfully passed the course performed better academically than those who did not take FYE 105 and were more likely to be retained the following semester. This study examined the impact *first-year experience* courses have on first-year student performance when enrolled in these courses at public community and technical colleges in Kentucky.

Research Question

The central research question guiding this study was:

1. Controlling for student characteristics, are there differences in the academic success of first-year, at-risk students at community and technical colleges-served in *first-year experience* courses-compared to students not participating in such courses?

This chapter presents data collected from KCTCS colleges during the 2014-2015 academic year. Data were collected from an existing database managed by the KCTCS IPRE department.

Data Collection

Mean Scores

Covariates included in this study controlled for pre-college entry characteristics (i.e., age, socioeconomic status, college-readiness; race; and ethnicity). The independent variable was program participation or not in FYE105. No differences in non-traditional students were found between the groups, so it was dropped as a covariate in the final analyses. Dependent variables included the number of credit hours at the end of the first year; first-year GPA; and first-year retention rates. Tables 4.1 through 4.3 present descriptive statistics on the covariates in this study.

ACT composite scores. According to CPE, many Kentucky students who transition to college are not fully prepared for the rigors of postsecondary education. A report by CCCSE found that 72% of students entering a two-year public institution were underprepared. When examining each ACT subject-area individually, it was found that

math was the subject in which the highest number of students were underprepared—59.5% overall; by English—51.8%; and Reading—39.2% (Hiemstra, 2006). The mean scores presented in Table 4.1 represent means that have not adjusted for student background. These data indicate that students who participated in FYE105 started the 2014-2015 school year with lower initial mean scores (M=18.57) than students who did not participate in FYE105 (M=20.28). Given this significant difference, ACT composite scores were included as a covariate in this study.

Table 4.1
ACT Composite Score

First Year Experience 2014	Mean	N	Std. Deviation
No	20.28	263	3.577
Yes	18.57	432	3.294
Total	19.22	695	3.501

Racial minority. A study conducted by Bahr (2008) found that students of disadvantaged racial/ethnic groups are more likely to be subjected to negative stereotypes regarding academic ability. The mean scores presented in Table 4.2 represent non-adjusted means for term GPA and cumulative credits for White and Non-White students. These scores represent the collective scores for the sample student population, including students enrolled in FYE105 and those not enrolled in FYE105. These data indicate that White students who participated in FYE105 had a higher average term GPA (M=2.67) and higher average cumulative credits earned (M=12.18) with 915 students belonging to this group. The initial mean scores of Non-White

students revealed a lower average term GPA (M=2.25) and lower average cumulative credits earned (M=10.42) with 310 students belonging to this group. Differences in racial minority were statistically significant; therefore, racial minority was included as a covariate in this study.

Table 4.2
Racial Minority

Racial Minority		Term GPA	Cumulative Credits Earned
White	Mean	2.67347	12.181
	N	915	915
	Std. Deviation	1.105050	5.0255
Non-White	Mean	2.25055	10.462
	N	310	310
	Std. Deviation	1.269993	4.9932
Total	Mean	2.56644	11.746
	N	1225	1225
	Std. Deviation	1.163130	5.0707

Pell Eligible. Table 4.3 includes a breakdown of student term GPA and cumulative credits earned based on socioeconomic status, as indicated by Pell eligibility. The 2014-2015 Fall academic year average term GPA for the non-Pell eligible sample was 2.70 (n=582), with this group of students accumulating an average of 12.83 credits at the end of the first-year. For all Pell eligible students, the mean term GPA was 2.44

(n=649), with this group of students accumulating an average of 10.80 credits at the end of the first-year.

Table 4.3
Pell Eligible

Pell Eligible		Term GPA	Cumulative Credits Earned
No	Mean	2.70691	12.825
	N	582	582
	Std. Deviation	1.093579	5.2144
Yes	Mean	2.44481	10.799
	N	649	649
	Std. Deviation	1.210475	4.7412
Total	Mean	2.56873	11.757
	N	1231	1231
	Std. Deviation	1.163604	5.0706

Further analysis of socioeconomic status based on Pell eligibility revealed that 49.7% (n=377) of the first-year experience sample were Pell eligible and 50.3% (n=381) were not Pell eligible. Of those students not participating in FYE105, 57.5% (n=272) were Pell eligible and 42.5% (n=201) were not Pell eligible. Differences in academic success by Pell eligibility were significant; therefore, Pell eligibility was included as a covariate in this study. The results of the Pell eligibility status summary are shown in Table 4.4.

Table 4.4
 Crosstabs: Pell Eligible-First-Year Experience 2014

			First Year Experience 2014	
			No	Yes
Pell Eligible	No	Count	201	381
		% within First Year Experience 2014	42.5%	50.3%
	Yes	Count	272	377
		% within First Year Experience 2014	57.5%	49.7%
Total		Count	473	758
		% within First Year Experience 2014	100.0%	100.0%

Crosstabs: Retention

First-year experience 2014. A cross tabulation analysis was conducted to determine the relationship between retention with first-year experience participants, racial minority, and Pell eligibility. The student’s retention records were recorded to determine how many students re-enrolled at the end of the first-year. Descriptive statistics in Table 4.5 reveal that 40.6% (n=308) of first-year students who participated in FYE105 were not retained, with 59.4% (n=450) of the sample being retained at the end of the first-year. Of all students not participating in FYE105, 40% (n=189) were not retained and 60% (n=284) were retained. Therefore, comparable percentages of first-year experience participants and non-participants were retained.

Table 4.5
 Crosstabs: Retained-First-Year Experience 2014

			First Year Experience 2014	
			No	Yes
Retained	No	Count	189	308
		% within First Year Experience 2014	40.0%	40.6%
	Yes	Count	284	450
		% within First Year Experience 2014	60.0%	59.4%
Total		Count	473	758
		% within First Year Experience 2014	100.0%	100.0%

Racial minority. Additional data on racial minority status revealed that of all White participants, 37.8% (n=346) were not retained. Of all Non-White participants, 47.7% (n=148) were not retained. Of the first-year sample, 62.2% (n=569) White and 52.3% (n=162) Non-White were retained. The results of retention by racial minority status are presented in Table 4.6. A Pearson’s Chi-square test was performed to determine the relationship between minority status and retention. As noted in Table 4.7, the results for this test indicated that the relationship between these variables was significant, $\chi^2(1, N=1225), p < .002$. Specifically, White students were more likely to be retained. Therefore, racial minority was included as a covariate in this study.

Table 4.6
Crosstabs: Retained-Racial Minority

			Racial Minority	
			White	Non-White
Retained	No	Count	346	148
		% within Racial Minority	37.8%	47.7%
	Yes	Count	569	162
		% within Racial Minority	62.2%	52.3%
Total		Count	915	310
		% within Racial Minority	100.0%	100.0%

Table 4.7
 Pearson's Chi-Square Test: Retained Racial Minority

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.484 ^a	1	.002
N of Valid Cases	1225		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 125.01.

Pell eligibility. Table 4.8 below provides data on the relationship between retention and Pell eligibility. Results from Table 4.8 indicate that 45.9% (n=298) of all first-year students who are Pell eligible are not retained, with 54.1% (n=351) of the students being retained. Of all non-Pell eligible students, 34.2% (n=199) are not retained, with 65.8% (n=383) of the students being retained. The results of the Pearson's Chi-square test yielded a Chi-square value of $\chi^2(1, N=1231)$, $p < .000$. This statistical significance indicated that retention and Pell eligibility are not independent. Specifically, Pell eligible students are less likely to be retained. Therefore, Pell eligibility was included as a covariate in this study.

Table 4.8
Crosstabs: Retained-Pell Eligible

			Pell Eligible	
			No	Yes
Retained	No	Count	199	298
		% within Pell Eligible	34.2%	45.9%
	Yes	Count	383	351
		% within Pell Eligible	65.8%	54.1%
Total	Count		582	649
	% within Pell Eligible		100.0%	100.0%

Table 4.9
Pearson's Chi-Square Test: Retained Pell Eligible

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	17.521 ^a	1	.000
N of Valid Cases	1231		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 234.97.

Univariate Analysis of Covariance

Univariate Analysis of Covariance (ANCOVA) was conducted to compare the mean term GPA, cumulative credits earned and retention between students participating in FYE courses and those not participating in these courses. Students were identified as not retained (coded=0) or retained (coded=1). The independent variable was FYE105. The dependent variables were the students' mean term GPA, mean cumulative credits earned and mean retention. The covariates included student ACT

composite scores, racial minority and Pell eligibility. Levene’s tests were run to test the equal variance assumption.

Term GPA. The mean term GPA for first-year, full-time students (N=692) participating in FYE105 was 2.59 (SD=1.14). The mean term GPA for first-year, full-time non-participants was 2.63 (SD=1.06). Levene’s test of equality of error variances indicated that $F=3.467$, $p=.063$. The error variance of the dependent variable was equal across groups and did not violate equality of variance. The covariates of racial minority ($p=.036$), Pell eligibility ($p=.018$) and ACT composite scores ($p=.000$) were statistically significant. Overall, the model explained 6.6% of the variance in term GPA. The estimated marginal mean was adjusted for the following covariates: racial minority=.21, Pell eligible=.45 and ACT composite score=19.20. After controlling for the three covariates, there were no significant differences in the estimated marginal mean term GPAs between FYE participants and non-participants ($p=.507$). The results of these analyses are presented below in Tables 4.10 through 4.13.

Table 4.10
Descriptive Statistics: Term GPA
Dependent Variable: Term GPA

First Year Experience 2014	Mean	Std. Deviation	N
No	2.63427	1.061321	262
Yes	2.59401	1.146031	430
Total	2.60925	1.114110	692

Table 4.11

Levene's Test of Equality of Error Variances:
 Term GPA
 Dependent Variable: Term GPA

F	df1	df2	Sig.
3.467	1	690	.063

Table 4.12

Tests of Between-Subjects Effects: Term GPA

Dependent Variable: Term GPA

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	61.347 ^a	4	15.337	13.231	.000	.072
Intercept	40.821	1	40.821	35.216	.000	.049
Minority	5.126	1	5.126	4.422	.036	.006
PellElig	6.502	1	6.502	5.609	.018	.008
ACTComp.score	24.238	1	24.238	20.910	.000	.030
FYE14	.511	1	.511	.441	.507	.001
Error	796.351	687	1.159			
Total	5568.978	692				
Corrected Total	857.698	691				

a. R Squared = .072 (Adjusted R Squared = .066)

Table 4.13

Estimated Marginal Means: Term GPA

Dependent Variable: Term GPA

First Year Experience 2014	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
No	2.573 ^a	.068	2.440	2.707
Yes	2.631 ^a	.053	2.528	2.735

a. Covariates appearing in the model are evaluated at the following values: Racial Minority = .21, Pell Eligible = .45, ACT Composite Score = 19.20.

Cumulative credits earned. The mean cumulative credits earned for first-year, full-time students (N=692) participating in FYE105 was 11.65 (SD=4.73). The mean cumulative credits earned for first-year, full-time non-participants was 12.41 (SD=5.16). Levene's test of equality of error variances indicated that the assumption of equality of variances was not violated (F=2.28, p=.131.) The covariates of Pell eligibility (p=.003) and ACT composite scores (p=.000) statistically significant, while racial minority status was not. Overall, the model explained 10.6% of the variance in cumulative credits earned. The estimated marginal mean was adjusted for the following covariates: racial minority=.21, Pell eligible=.45 and ACT composite score=19.20. After controlling for the three covariates, there were no significant differences in the estimated marginal mean cumulative credits earned between FYE participants and non-participants (p=.675.) The results of these analyses are displayed in Tables 4.14 through 4.18.

Table 4.14
Between-Subjects Factors

		Value Label	N
First Year Experience 2014	0	No	262
	1	Yes	430

Table 4.15
Descriptive Statistics: Cumulative Credits Earned
Dependent Variable: Cumulative Credits Earned

First Year Experience 2014	Mean	Std. Deviation	N
No	12.412	5.1659	262
Yes	11.654	4.7307	430
Total	11.941	4.9102	692

Table 4.16
Levene's Test of Equality of Error Variances:
Cumulative Credits Earned
Dependent Variable: Cumulative Credits Earned

F	df1	df2	Sig.
2.283	1	690	.131

Table 4.17

Tests of Between-Subjects Effects: Cumulative Credits Earned

Dependent Variable: Cumulative Credits Earned

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	1859.752 ^a	4	464.938	21.582	.000	.112
Intercept	455.736	1	455.736	21.155	.000	.030
Minority	21.292	1	21.292	.988	.320	.001
PellElig	190.199	1	190.199	8.829	.003	.013
ACTComp.score	971.020	1	971.020	45.074	.000	.062
FYE14	3.796	1	3.796	.176	.675	.000
Error	14800.003	687	21.543			
Total	115327.617	692				
Corrected Total	16659.755	691				

a. R Squared = .112 (Adjusted R Squared = .106)

Table 4.18

Estimated Marginal Means: Cumulative Credits Earned

Dependent Variable: Cumulative Credits Earned

First Year Experience 2014	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
No	12.039 ^a	.293	11.463	12.615
Yes	11.881 ^a	.227	11.435	12.326

a. Covariates appearing in the model are evaluated at the following values: Racial

Minority = .21, Pell Eligible = .45, ACT Composite Score = 19.20.

Retained. Descriptive statistics revealed that the mean retention rate for first-year, full-time FYE (N=430) students and non-FYE (N=262) students was 63% (SD=.48). The result of Levene’s test of equality of error variances was $F=.104$, $p=.747$. The error variance of the dependent variable was equal across groups and did not violate equality of variance. The covariates of racial minority ($p=.009$) and Pell eligibility ($p=.011$) were significant while ACT scores was not. Collectively, the variables account for 3.3% of the variance in retention. The estimated marginal mean was adjusted for the following covariates: racial minority=.21, Pell eligible=.45 and ACT composite score=19.20. After controlling for these covariates, there were no significant differences in the estimated marginal mean retention rate for these two groups of students ($p=.768$.) The results of these analyses can be viewed below in Tables 4.19 through 4.22.

Table 4.19
Descriptive Statistics: Retained

Dependent Variable: Retained

First Year Experience 2014	Mean	Std. Deviation	N
No	.63	.484	262
Yes	.63	.484	430
Total	.63	.484	692

Table 4.20
 Levene's Test of Equality of Error Variances:
 Retained
 Dependent Variable: Retained

F	df1	df2	Sig.
.104	1	690	.747

Table 4.21
 Tests of Between-Subjects Effects

Dependent Variable: Retained

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	6.158 ^a	4	1.539	6.806	.000	.038
Intercept	4.595	1	4.595	20.312	.000	.029
Minority	1.545	1	1.545	6.831	.009	.010
PellElig	1.461	1	1.461	6.457	.011	.009
ACTComp.score	.473	1	.473	2.092	.149	.003
FYE14	.020	1	.020	.087	.768	.000
Error	155.396	687	.226			
Total	435.000	692				
Corrected Total	161.553	691				

a. R Squared = .038 (Adjusted R Squared = .033)

Table 4.22
 Estimated Marginal Means: Retained
 Dependent Variable: Retained

First Year Experience 2014	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
No	.622 ^a	.030	.563	.681
Yes	.633 ^a	.023	.587	.679

a. Covariates appearing in the model are evaluated at the following values: Racial

Minority = .21, Pell Eligible = .45, ACT Composite Score = 19.20.

In summary, several pre-college entry characteristics were identified that influence student success and differed between FYE participants and non-participants. These variables included racial minority, Pell eligibility and ACT composite scores, and these variables were used as covariates in this study. Dependent variables included GPA, credits earned and retention. After controlling for the above covariates, mean GPA, credits earned and retention were compared between FYE participants and non-participants. All three ANCOVAs were not statistically significant, thus indicating no differences in the adjusted means of the dependent variables between FYE participants and non-participants.

Chapter Five will discuss the major findings revealed in this study. In addition, it will provide a discussion of the implications of these findings as related to first-year experience policy, practice and future research.

CHAPTER 5

DISCUSSION OF RESULTS

This chapter delineates the results, conclusions and recommendations for this quantitative study done to provide further understanding of the effects of *first-year experience* courses on student academic success in public community and technical colleges in Kentucky. Forthcoming sections provide an overview of the outcomes with an emphasis on possible explanations for the lack of an effect on FYE courses on student academic success, implications for the study, and recommendations for policy, practice and future research.

Reasons for Insignificant Differences

Some of the seminal work on student retention by Noel-Levitz (2012) found that retention is the result of improved programs and services that contribute to first-year success. One of the greatest implications affecting this research study is the level of incongruence faculty and staff face when developing and piloting first-year learning environments which embrace first-year pedagogy. In community and technical college settings, complications, ambiguity and conflicts often arise because faculty, staff and college administration fail to respond to the diverse learning needs of first-year students (Noel-Levitz, 2012). A major factor that increases the ambiguity of FYE programs in community and technical college settings is the large number of students not in FYE that participate in student groups and utilize other student support services and resources on campus. According to the *2014 First-Year Engagement Survey*, approximately 96% of first-year students receive services such as tutoring-15%; student organizations-10%;

academic advising-61%; and, career counseling-10%) that add some of the same benefits FYE offers, therefore diluting the potential differences in academic success outcomes between first-year participants and non-participants.

Research also indicates that student success is greatly influenced by the quality and quantity of student-faculty-peer interaction (Cuseo, n.d.). A review of literature found that two key challenges: (1) the resistance to transformative and experiential pedagogy across bureaucratic structures; and (2) inadequate resources-greatly affect the process for making the first-year experience transparent and synergistic for students (Inderbitzin et al., 2008; Johnson-Bailey et al., 2006).

Due to these implications, it is possible that faculty who taught FYE105 during the pilot semester failed to properly implement the program. In addition to fidelity of implementation, faculty teaching and grading styles may have affected the student's ability to learn the fundamentals required. This will greatly impact how students ascertain what their experience has taught them and guarantee a transfer of learning that will contribute to student success beyond the first year or in other college courses (Bement, 2010).

External Factors

Freshman success during the first year is a very vital component to pre-baccalaureate preparation and continued academic success. While community and technical colleges in Kentucky work to improve retention, they must realize that retention is really hard to improve when there are influential factors outside of the college's control. First, there are numerous external factors that affect retention that

community and technical colleges cannot control regardless of what happens such as: financial limitations, familial responsibilities, lack of support, and better opportunities for students to transfer to other community and technical colleges or 4-year universities before completing their first year.

Second, community and technical colleges are not collecting exit data to evaluate why students are leaving. For example, students transferring to a four-year institution after their first year are counted as non-retained, which should be corrected. In other words, some exit reasons should be counted as non-retained while others should not. Finally, it is important to share with students participating in the course the purpose of the course, expectations for both the student and instructor and how the course curriculum has been developed to help them in their first-year experience to avoid the course being viewed as irrelevant to their college experience (Corella, 2010).

Theoretical Foundations of Experiential and Transformational Learning

In support of the aforementioned implications, theorists argue that the theoretical foundations of experiential and transformational learning theories can be unclear and contradictory to faculty, staff, college administrators and students when referring to sequential steps in a learning cycle. Every student progresses throughout the first year at different stages academically, so many theorists question if Kolb's and Mezirow's models of learning actually constitute stages of learning or styles of learning.

Measuring student success in FYE courses based on specific stages of cognitive growth and development can be unreliable if the curriculum and instructional content of FYE courses seek to evaluate how all students within a specific cohort progress

academically at different stages during their first year. Bergsteiner et al. (2010) reported that as students progress through the different learning stages their learning preferences and levels of engagement are influenced based on their interpretation of the learned experience. Within experiential and transformational learning environments, the learned experience will vary based on a variety of perspectives and differing beliefs. If all students do not achieve the same level of cognitive development or growth from the learned experiences, theorists believe that it is difficult for learning to fully occur since each stage represents successful completion of the previous step (Bergsteiner et al., 2010; Murphy, 2007). To better support implications for practice in *first-year experience* courses, community and technical colleges in Kentucky must include specific elements that will provide evidence of skill transferability that will evaluate how the skills acquired in these courses contribute to life-long skill attainment for employability and successful transfer into four-year universities for first-year experience participants.

Predictors of Student Participation in FYE105

Student participation was tracked in cohorts through the 2014-2015 academic year. Racial minority status, Pell eligibility, and lower ACT Composite scores were all negative predictors of academic success as measured by credit hours earned, first-year GPA, and first-year retention rates.

Predictors of Pre-College Entry Characteristics and First-Year Academic Success

An ANCOVA was conducted to compare the mean GPA, cumulative credits earned and retention. The covariates included student ACT composite scores, racial minority status and Pell eligibility, all of which were identified as significant covariates in the study. Prior to controlling for these covariates, data revealed that Non-FYE, first-year, full-time students were more likely to have higher term GPA's and higher cumulative credits earned. However, after controlling for these three covariates, no differences in academic success were found between FYE participants and non-participants.

Implications for First-Year Experience Policies

Stakeholders and policymakers are striving to increase the number of college-ready Kentuckians entering KCTCS colleges and successfully transferring to four-year institutions. As part of the first-year academic success frameworks in Kentucky, CPE is taking great strides to ensure our students are prepared for credit-bearing work and first-year academic success; however, there is still a lot of work that needs to be done to increase the retention rates of first-year students, improve first-year academic success and increase the earning of postsecondary credentials in Kentucky by 2020.

Quantifying the effectiveness of *first-year experience* courses through the determination of the outcomes of first-year student academic success is critical if continued support by stakeholders is to be expected, especially in Kentucky, with the current \$36 million in budget cuts at community and technical colleges (*Budget cuts*, 2015). Additionally, CPE is focusing on establishing policies that require all institutions

to adopt policies and practices that promote staying environments that are student-centered and learning-driven. The focus is to ensure that college communities are educationally purposeful, caring and committed to the economic stability and vitality of Kentucky (Cuseo, n.d.).

To be effective, CPE has been placing greater accountability measures on all institutions in Kentucky, but more specifically on community and technical colleges, since they serve as the gateway to career and technical training. CPE standards now require that administrators provide evidence of necessary educational resources to support first-year students through an institutional budget and administrative structure designed specifically to build campus community, increase institutional identification and support initiatives that will serve the critical needs of first-year, at-risk students (Cuseo, n.d.).

Recent funding education reforms in Kentucky are gearing towards linking college funding with performance. The proposal by CPE is an effort to boost low national rankings in educational attainment and put pressure on institutions to improve graduation rates and degree attainment. Based on CPE guidelines, performance-based standards in Kentucky which began in January 2014 set aside \$25 million in state funded tax dollars during the second year of the biennium for public universities and the Kentucky Community and Technical College System. Beginning fiscal year 2018, one-third of state funding for universities will be based on performance measurements with the intention to fully phase in outcomes-based funding over a three-year period.

The funds will be allocated based on degree productivity. Institutions also will be held accountable for closing the achievement gap for underprepared students; increasing the number of degrees awarded in fields such as science, technology, engineering and math; and increasing the number of transfer students from KCTCS colleges to four-year institutions (Barrett, 2011; Bevin & Chilton, 2016; Willis, 2016).

The problem with outcomes-based funding is if colleges are implementing best practices and retention is not impacted, then the system likely is not fair. The universities that admit the most prepared and highest achieving students will receive more money. Although such a system may cause four-year colleges to be more selective and reduce access to higher education for the most disadvantaged, being more selective is not a viable option for community and technical colleges. Therefore, first-year student success programs that are performance-based will push community and technical colleges to focus on providing higher levels of student performance.

The push for institutional self-assessment allows CPE and the state to hold community and technical colleges accountable for improving recruitment practices, student tracking and longitudinal data collection to generate a baseline for comparison of first-year programs and services across the state. Stakeholders and policymakers will then be able to focus more on the overall impact and value of first-year programs, implement policies to ensure program longevity and formatively work with administrators to improve program quality for successive cohorts of students (Barrett, 2011; Cuseo, n.d.).

Recommendations for Policy and Practice

The recommendation for the continuation of offering *first-year experience* courses through KCTCS colleges is based not on findings from this study of the program while in its infancy but more on research supporting various initiatives embedded in such programs and the potential of such programs once implemented with more fidelity. This potential supports strategies three and four of CPE's five actions: (1) raise high school graduation rates; (2) increase the number of GED graduates and transition more to college; (3) enroll more first-time students in KCTCS and transfer them to four-year programs; (4) increase the number of Kentuckians going to and completing college; and (5) attract college-educated workers to the state and create new jobs for them.

The purpose of the Council's five strategies is to produce additional degree holders and double the numbers. Based on the 2020 statewide targets outlined in strategy 3, the Council is focused on a) increasing KCTCS enrollment from 86,500 to 115,800; and b) increasing KCTCS transfers to four-year universities from 4,500 to 11,300 (CPE, 2007).

The statewide targets of CPE as a reform strategy for community and technical colleges in Kentucky allow KCTCS to (1) expand capability at community and technical colleges to deliver a general education component; (2) enhance partnerships to provide collaborative advising and student services to support transfer; (3) increase affordability at community and technical colleges; (4) provide incentives and rewards for colleges and universities for increased degree production; and (5) concentrate efforts across the

system to strengthen guidance and support for students at every stage of their academic careers (CPE, 2007).

Financial Stability

Clearly, distinct parallels can be drawn between the statewide targets of CPE and the financial stability of community and technical colleges in Kentucky. Stakeholders and policymakers understand that enrollment is a critical factor. More importantly, KCTCS is aware of what budgetary restrictions and constraints do to a variety of efforts to improve support services and the retention rates of first-year, at-risk students. As funding from the state to postsecondary institutions continue to decline annually, efforts should be focused on identifying additional external funding sources to support first-year programs. These efforts are critical especially in light of the Governor's proposed 4.5% budget reduction in the 2016 fiscal year, and an additional 9% reduction in the following two years-totaling 13.5% over the next two years or approximately \$17 million for KCTCS (Bevin, 2016).

External Funding From Grants

As noted above, one recommendation for policy and practice is to seek additional external funding from grants. Grants serve as an excellent funding strategy due to their early intervention component to monitor and track their compliance with other related projects in the state (Gear up, n.d.). Per the KCTCS CPE Senate Bill 1 (SB 1) implementation grant, KCTCS allocates \$11,000 annually towards tracking initiatives for SB 1 compliance. Tracking for SB 1 compliance requires KCTCS to establish performance measures specifically targeted for the success of at-risk students. The grant focuses on

assessment, placement, student tracking and intense advising structures to increase the graduation rates of at-risk students and improve college readiness. The purpose of the grant is to align transitional and gateway courses with Kentucky Core Standards to facilitate a seamless transition from high school to college (Quillen, n.d.).

SB 1 implementation grant. Second, a recommendation for revision to the SB 1 implementation grant to include *first-year experience* courses as a target would allow stakeholders and policymakers to accomplish six goals: (1) establish new performance measures and provide training opportunities for faculty who teach first-year, at-risk students; (2) effectively monitor and track the progress of student participation in the program; (3) implement a performance-based funding model to justify the required need for additional funding; (4) re-allocate state funding appropriations under SB 1 grant to better support professional development for faculty and first-year programs; (5) develop a statewide agreement to offer *first-year experience* courses as a general education requirement and not as an elective course at KCTCS colleges; and (6) tap into partnership grants throughout Kentucky that would allow KCTCS to work with students as early as middle school.

President Obama's America's College Promise

The final recommendation for policy and practice is to adopt President Obama's America's College Promise proposal in Kentucky. The objectives of the proposal strategically align with the goals of CPE and KCTCS colleges to produce additional degree holders and double the numbers by 2020. The proposal is committed to: (1) enhancing student responsibility and cutting the cost of college for all Americans; (2) building high-

quality community and technical colleges; (3) ensuring shared responsibility with states; (4) expanding technical training for middle class jobs; (5) building on state and local programs; and (6) expanding federal support to help more students afford college.

Adopting this proposal in Kentucky will allow stakeholders and policymakers to focus on promoting key reforms to help more students graduate. The proposal ensures shared responsibility with states that will require federal funding to cover three-quarters of the average cost of community college, leaving states responsible for the remaining quarter (The White House, 2015). This funding opportunity can greatly assist KCTCS as the most affordable institution in Kentucky by allowing the system to allocate a significant portion of funding based on first-year student performance, not enrollment alone.

To begin, the president's proposal would allow KCTCS to strengthen program offerings and increase enrollment, first-year retention rates and the number of students who graduate. Second, the proposal would assist in narrowing America's skills gap by letting students earn skills needed in the workforce at no cost. Additionally, research shows that if all states participate, an estimated 9 million students could benefit, saving full-time, first-year community college students an average of \$3,800 in tuition per year (The White House, 2015).

Recommendations for Future Research

Linking First-Year Programs

Every opportunity to capitalize on improving teaching and learning in the community and technical college for first-year, at-risk students should serve as an avenue to link all first-year support programs and services to *first-year experience* courses. The synergy created from linking support programs to FYE courses would provide a centralized first-year approach that would embody quality assessment of first-year student outcomes, retention and student success. The current study should be replicated in contexts in which such linkages exist.

Mandate FYE Course

To be effective, future research on this topic should be conducted if KCTCS considered providing this course as an option to all first-year students and not just first-year students with fewer than 30 semester hours earned. Making this small change can potentially encourage greater participation in first-year programs, tap into additional funding sources to support first-year programs, and, improve retention rates.

Implementation of a Mixed Methods Study

This study could be improved by using a mixed method design which would include qualitative data in order to assess efficacy and effectiveness for promoting student learning and retention. The following areas would provide valuable feedback for implementation: (1) participants' feedback regarding course assignments, course projects and the utilization of campus support resources and services; (2) longitudinal analysis of learned experiences and application of skills learned based on Kolb's

experiential learning theory (1984) and Mezirow's transformational learning theory (1997) as students' progress through and complete their college experience; (3) evaluation of the instructor's style of teaching to establish consistency of implementation and improve academic rigor across the program; and (4) evaluation of the level of faculty interaction with the student in the learning environment to ensure consistency across institutional commitment, attitude and support towards FYE courses.

Scholarship Opportunities

Offering scholarship opportunities for first-year, at-risk students designed specifically to provide full financial assistance to support their studies toward associate degrees can provide additional assessment opportunities for community and technical colleges. Currently, KCTCS colleges offer several need-based scholarships for first-year, at-risk students, but none that have been assessed for their impact on first-year student success.

An investment in scholarship opportunities for first-year, at-risk students will not only defray the costs of tuition and fees, it will also increase program participation. Surveys designed to evaluate those students who receive these scholarships can provide a wealth of data to community and technical colleges. These surveys can track student progress in FYE courses; the resources they use at the college; and provide a better assessment of the impact of demographic characteristics for first-year, at-risk students, especially socioeconomic status, for reporting requirements to CPE and the Kentucky Department of Education (KDE).

Leadership and Instruction in FYE Courses

Future research on *first-year experience* courses should focus on providing a balanced combination of leadership and instruction in FYE courses that will provide a consistent, high-quality first-year experience for first-year, at-risk students for years to come. To begin, the curriculum and assignments of FYE courses in community and technical colleges need to be carefully evaluated for consistency across all KCTCS colleges. A very valuable instrument that may assist with assessing FYE courses is the Valid Assessment of Learning in Undergraduate Education (VALUE) rubric. The assessment is a campus-based initiative sponsored by the Association of American Colleges and Universities (AAC&U) as part of its Liberal Education and America's Promise (LEAP) initiative to (1) assess how well students are meeting graduation level achievement in learning outcomes; and, (2) evaluate levels of student learning (AAC&U, 2016).

Finally, KCTCS can benefit from establishing partnerships with other universities and community college systems throughout the nation to effectively align first-year policies and practices. Aligning the core competencies of FYE courses to ensure mastery of skills for the purpose in which these courses were intended will improve first-year student success and ensure transferability of skills. In addition, these efforts will improve future assessment measures by closing the gap in the information loop between KCTCS colleges. This will provide a more reliable database for future research regarding the outcomes of first-year, at-risk students and address why first-year, at-risk students are exiting at such high rates.

Summary

Community and technical colleges serve as both teaching institutions and colleges of learning to develop communities that will improve America's workforce and encourage lifelong learning. *First-year experience* courses have the potential to assist in developing the skills required for first-year student success and beyond by presenting a resourceful and influential learning platform for all first-year, at-risk students.

Several researchers conclude that first-year, at-risk students want to be a part of community and technical colleges that not only foster a strong commitment to putting students first but also values their academic growth, learning and success (Cuseo, n.d.; Ishler et al., n.d.). The models used to assess first-year student success in community and technical colleges reflect core measures committed to a life-long learning process that requires continuous skill development, thus allowing students to enhance their academic, personal and professional lives. Previous research indicates that these programs are not only 93% more effective in increasing retention and first-year academic success for first-year, at-risk students; they also yield high expectations for both faculty and students (Fernandez et al., 2014). Findings from this study contribute to higher education a better understanding of the role *first-year experience* courses play in promoting academic success and retention; justify the need to improve data collection measurements for first-year, at-risk students; and assist in the ongoing development of *first-year experience* courses.

All things considered, community and technical colleges in Kentucky can benefit from *first-year experience* courses by providing a more systematic process to meet the

challenging demands of 21st century learning outcomes for first-year, at-risk students.

Each of the recommendations presented in this study has the potential to create a more efficient use of resources and assist in developing sustainable plans for promoting first year student success. This requires a commitment to improve quality in areas that will produce the greatest return on investment for both students and community and technical colleges. In return, administrators, educators, stakeholders and policymakers will better understand how first-year programs, academic services and student support contribute to the overall achievement of the college and their role in facilitating the overall academic success of first-year, at risk students.

LIST OF REFERENCES

Ackerman, P. L., Kanfer, R., & Beier, M. E. (2013). Trait complex, cognitive ability, and domain knowledge predictors of baccalaureate success, STEM persistence, and gender differences. *Journal of Educational Psychology, 105*(3), 911-927. doi:10.1037/a0032338

American Association of Community Colleges. (2015). Fast facts from our fact sheet.

Retrieved from <http://www.aacc.nche.edu/AboutCC/Pages/fastfactsfactsheet.aspx>

American Association of Community Colleges. (2016). Characteristics of community colleges. Retrieved from

<http://www.aacc.nche.edu/AboutCC/Trends/Pages/characteristicsofcommunitycolleges.aspx>

American College Testing, Inc. (2015). ACT college readiness benchmarks. Retrieved from [https://www.act.org/solutions/college-career-readiness/college-readiness-](https://www.act.org/solutions/college-career-readiness/college-readiness-benchmarks/)

[benchmarks/](https://www.act.org/solutions/college-career-readiness/college-readiness-benchmarks/)

American College Testing, Inc. (2015). The condition of college and career readiness 2015: National ACT. Retrieved from

<http://act.org/research/policymakers/cccr15/pdf/CCCR15-NationalReadinessRpt.pdf>

American College Testing, Inc. (2015). Overview. Retrieved from

<http://www.act.org/products/k-12-act-test/>

Anderson, R., Briggs, S., & Scarpati, A. (2002). Uncommon values in a common course: Difficulties in sustaining an interdisciplinary first-year experience. *Peer Review, 4*(4), 13.

Arnett, A. A. (2015, October 12). Educators seeking means to open doors for first-generation students. *Diverse Issues in Higher Education*. Retrieved from

http://diverseeducation.com/article/78311/?utm_campaign=Diverse%20Newsletter%203SpecialSend101315&utm_medium=email&utm_source=Eloqua&elq=e489c3d1e978455cb620b7bdcbc46294&elqCampaignId=825&elqaid=1197&elgat=1&elqTrackId=4c04d9c296844b87887f74b4c73f4c5a

Association of American Colleges and Universities. (2008). High-impact educational practices. Retrieved from <http://www.aacu.org/leap/hips>

Association of American Colleges and Universities. (2016). Value-MS project: Multi-state collaborative. Retrieved from <https://www.aacu.org/value>

Astin, Alexander W. (1984), "Student involvement: A developmental theory for higher education," *Journal of College Student Personnel*, 25(3), 297–308.

Attewell, P., Heil, S., & Reisel, L. (2011). Competing explanations of undergraduate non-completion. *American Educational Research Journal*, 48(3), 536-559.

Bahr, P. (2008). Cooling out in the community college: What is the effect of academic advising on students' chances of success? *Research in Higher Education*, 49(8), 704-732.
doi:10.1007/s11162-008-9100-0

Barrett, P. K. (2011). Plan would link college funding with performance. *Community College Week*, 24(8), 4.

Bement, S. A. (2010). *The effects of first-year experience courses on student's grades in remedial English and mathematics courses* (Doctoral dissertation). Retrieved from ProQuest LLC. UMI 3433121

Bevin, M. (2016, January 26). *State of the commonwealth budget address* (Television broadcast). Frankfort, KY: Live legislative coverage.

Bevin, M.G., & Chilton, J. E. (2016). Commonwealth of Kentucky 2016-2018 executive budget: Budget in Brief. Retrieved from

<http://osbd.ky.gov/Publications/Documents/Budget%20Documents/2016-2018%20Executive%20Budget%20Recommendation/Budget%20in%20Brief.pdf>

Bergsteiner, H., Avery, G. G., & Neumann, R. (2010). Kolb's experiential learning model: Critique from a modelling perspective. *Studies in Continuing Education*, 32(1), 29-46.

doi:10.1080/01580370903534355

Bielaczyc, K., & Collins, A. (n.d.). Learning communities in classrooms: A reconceptualization of educational practices. *Instructional Design Theories and Models*,

2. Retrieved from

<http://isites.harvard.edu/fs/docs/icb.topic541040.files/Bielaczyc%20and%20Collins-Learning%20Communities%20in%20Classrooms.pdf>

Bluegrass Community & Technical College. (n.d). Fast facts: Fall 2014 enrollment and 2013-2014 credentials awarded. Retrieved from

http://bluegrass.kctcs.edu/IPRE/Fast_Facts.aspx

Bluegrass Community & Technical College. (2014, October 13). *First-year engagement survey–2014*. Retrieved from

https://ites.bluegrass.kctcs.edu/modules/ipre/files/fyengagementsurvey_fall2014.pdf

Bluegrass Community & Technical College. (n.d.). FYE achieving academic success-First year experience for freshmen. Retrieved from

http://bluegrass.kctcs.edu/en/Current_Students/First_Year_Experience/FYE_Training_Manual.aspx

Bluegrass Community & Technical College. (n.d.). Institutional accreditation. Retrieved from http://www.bluegrass.kctcs.edu/en/About/Institutional_Accreditation.aspx

Bluegrass Community & Technical College. (n.d.). Our college at a glance. Retrieved from http://www.bluegrass.kctcs.edu/en/About/Our_College_at_a_Glance.aspx

Bluegrass Community & Technical College. (n.d.). Our mission and vision. Retrieved from http://www.bluegrass.kctcs.edu/en/About/Our_Mission_and_Vision.aspx

Bluegrass Community & Technical College. (n.d.). Strategic plan 2010-2016: Focus on the future. Retrieved from <http://bluegrass.kctcs.edu/~media/Bluegrass/IPRE/documents/StrategicPlan.ashx>

Bluegrass Community & Technical College. (n.d.). Student achievement disclosure information. Retrieved from http://www.bluegrass.kctcs.edu/About/Student_Achievement_Disclosure_Information.aspx

Bluegrass Community and Technical College. (n.d.). Student support services. Retrieved from <http://bluegrass.kctcs.edu/en/SDEM/SSS.aspx>

Bradley, P. (2013). Report details growing higher education inequities. *Community College Week*, 25(22), 5.

Brock, S. E. (2010). Measuring the importance of precursor steps to transformative learning. *Adult Education Quarterly*, 60(2), 122-142. doi: 10.1177/0741713609333084

Budget cuts and layoffs follow steep enrollment decline. (2015). *Community College Week*, 28(4), 2.

Bui, K. V. T. (2002). First-generation college students at a four-year university: Background characteristics, reasons for pursuing higher education, and first-year experiences. *College Student Journal, 36*(1).

Byrnes, J. (2009). At-risk students. Retrieved from <http://www.education.com/reference/article/at-risk-students/>

Cabrera, A. F., & Nora, A. (1993). College persistence. *Journal of Higher Education, 64*(2), 123-139.

Calvert, K. (2015, January 20). 2015 State of the Union-Obama: Community college should be as free and universal in America as high school' [The Rundown]. Retrieved February 10, 2015, from <http://www.pbs.org/newshour/rundown/community-college-tuition-top-theme-state-union-speech/>

Center for Community College Student Engagement. (2012). *A matter of degrees: Promising practices for community college student success (A first look)*. Austin, TX: The University of Texas at Austin, Community College Leadership Program.

Cho, S., & Karp, M. (2013). Student success courses in the community college: Early enrollment and educational outcomes. *Community College Review, 41*(1), 86-103.
doi:10.1177/0091552112472227

Community college (Two-year institution). (n.d.). In *Integrated Postsecondary Education Data System: Glossary*. Retrieved from <http://nces.ed.gov/ipeds/glossary/?charindex=T>

Corella, A. K. (2010). *Identifying college student success: The role of first year success courses and peer mentoring* (Doctoral dissertation). Retrieved from ProQuest LLC. UMI 3402867

Cuseo, J. (n.d.). A comprehensive first-year experience: Ten target areas for institutional self-assessment of programs and practices. Retrieved from

<http://cpe.ky.gov/nr/ronlyres/e0ce8e53-dadc-4ff9-96ea-390976b360a5/0/acomprehensivefirstyearexperience.pdf>

Cuseo, J. (n.d.). Student success: Definition, outcomes, principles and practices.

Retrieved from

<http://www2.indstate.edu/studentsuccess/pdf/Defining%20Student%20Success.pdf>

Cuseo, J., Thompson, A., McLaughlin, J. A., & Moono, S. H. (2010). *Thriving in the community college and beyond: Strategies for academic success and personal development*. Dubuque, IA: Kendall Hunt Publishing Company.

DeFreitas, S. D., & Rinn, A. A. (2013). Academic achievement in first generation college students: The role of academic self-concept. *Journal of the Scholarship of Teaching & Learning, 13*(1), 57-67.

Eli and Edythe Broad Foundation. (n.d.). Statistics. *The Education Crisis*. Retrieved from

http://www.broadeducation.org/about/crisis_stats.html

Fernandez, N. P., Murphy, S., Keup, J., & O'Donnell, K. (2014). *Intellectual oomph in the first year experience* [PowerPoint slides]. Retrieved from

http://sc.edu/fye/research/research_presentations/files/2014/2014%20AAC&U_intellectual%20oomph.pdf

Fike, D. S., & Fike, R. (2008). Predictors of First-Year Student Retention in the Community College. *Community College Review, 36*(2), 68-88.

First-year, full-time student. (n.d.). In *Integrated Postsecondary Education Data System: Glossary*. Retrieved from <http://nces.ed.gov/ipeds/glossary/?charindex=F>

Gear up: Right choices for youth. (n.d.). GEAR UP State grants vs. partnership grants.

Retrieved from http://cpe.ky.gov/NR/rdonlyres/E49CB487-6440-4131-BA1E-0146704F3EE2/0/state_vs_ptrnshpGrants05_soundbites.pdf

Grabove, V. (1997). The many facets of transformative learning theory and practice.

New Directions for Adult & Continuing Education, (74), 89.

Greenwald, R. (2012). Think of first-generation students as pioneers, not problems.

Chronicles of Higher Education, 59(12), 37-38. Retrieved from

<http://libproxy.eku.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db+aph&AN=83412959&site=ebhost-live&scope=site>

Hanson, C., & Amelotte, P. (2013). Cracking open the curriculum. *Liberal Education*, 99(1), 44-49.

Hiemstra, H. (2006). Underprepared students in Kentucky: A first look at the 2001

mandatory placement policy. Retrieved from http://cpe.ky.gov/info/dev_edu/index.htm

Hodge, S. (2014). Transformative learning as an “inter-practice” phenomenon. *Adult*

Education Quarterly, 64(2), 165-181. doi:10.1177/0741713613520405

Howard, H. E., & Jones, W. P. (2000). Effectiveness of a freshman seminar in an urban university: Measurement of selected indicators. *College Student Journal*, 34(4), 509.

Huck, S. & Cormier, W. (1996). *Reading Statistics and Research Second Edition*. New York: Harper Collins College Publishers

Hunter, M. (2006). Lessons learned: Achieving institutional change in support of students in transition. *New Directions for Student Services*, (114), 7-15.

doi:10.1002/ss.203

Inderbitzin, M., & Storrs, D. A. (2008). Mediating the conflict between transformative pedagogy and bureaucratic practice. *College Teaching*, 56(1), 47-52.

Integrated Postsecondary Education Data System (IPEDS). (n.d.). In *Integrated Postsecondary Education Data System: Glossary*. Retrieved from

<http://nces.ed.gov/ipeds/glossary/?charindex=l>

Ishler, J. L., & Upcraft, M. L. (n.d.). The keys to first-year student persistence. Retrieved from

http://www.ncsu.edu/uap/transition_taskforce/documents/documents/TheKeystoFirst-YearStudentPersistence.pdf

Johnson-Bailey, J., & Alfred, M. V. (2006). Transformational teaching and the practices of black women adult educators. *New Directions for Adult & Continuing Education*, (109), 49-58.

Kentucky Community and Technical College System. (n.d.). About KCTCS. Retrieved from

http://www.kctcs.edu/About_KCTCS.aspx

Kentucky Council on Postsecondary Education. (n.d.). 15 to finish: Overview. Retrieved from <http://15tofinishky.org/files/15toFinishoverview.pdf>

Kentucky Council on Postsecondary Education. (n.d.). College and career readiness in

Kentucky. Retrieved from <http://cpe.ky.gov/NR/rdonlyres/159216BD-E814-48A1-979E->

[8955E3C1DA8D/0/COLLEGEANDCAREERREADINESSINKENTUCKYandSenateBill1forBoard
OrientationBook.pdf](http://cpe.ky.gov/NR/rdonlyres/76889317-86C5-4AFF-9046-AD95E4137602/0/DoubletheNumbersPlanFINALNov15.pdf)

Kentucky Council on Postsecondary Education. (2007). Double the numbers: Kentucky's plan to increase college graduates. Retrieved from

[http://cpe.ky.gov/NR/rdonlyres/76889317-86C5-4AFF-9046-
AD95E4137602/0/DoubletheNumbersPlanFINALNov15.pdf](http://cpe.ky.gov/NR/rdonlyres/76889317-86C5-4AFF-9046-AD95E4137602/0/DoubletheNumbersPlanFINALNov15.pdf)

Kentucky Teacher. (2015, August 27). More Kentucky graduates meet state benchmarks on ACT. *News for the Nations Most Innovation Educators*. Retrieved from

[http://www.kentuckyteacher.org/news/2015/08/more-kentucky-graduates-meet-state-
benchmarks-on-act/](http://www.kentuckyteacher.org/news/2015/08/more-kentucky-graduates-meet-state-benchmarks-on-act/)

Keup, J. R., & Skipper, T. L. (2014). *How "HIP" is your first-year seminar? National research and trends* [PowerPoint slides]. Retrieved from

[http://sc.edu/fye/research/research_presentations/files/2014/Skipper_keup_How%20h
ip_2014.pdf](http://sc.edu/fye/research/research_presentations/files/2014/Skipper_keup_How%20hip_2014.pdf)

Keup, J. R. (2013). *The first-year experience: Lessons learned and emerging issues* [PowerPoint slides]. Retrieved from

[http://www.sc.edu/fye/research/research_presentations/files/Keup_Teaching%20and%
20Learning%20Conference_Johannesburg%202013.pdf](http://www.sc.edu/fye/research/research_presentations/files/Keup_Teaching%20and%20Learning%20Conference_Johannesburg%202013.pdf)

Kose, B., & Lim, E. (2011). Transformative professional learning within schools:

Relationship to teachers' beliefs, expertise and teaching. *Urban Review*, 43(2), 196-216.

doi:10.1007/s11256-010-0155-9

Lam, G. (2014). A theoretical framework of the relation between socio-economic status and academic achievement of students. *Education, 134*(3), 326-331.

Lorenzetti, J. (2013). FYE courses for underprepared and undeclared students.

Recruitment & Retention in Higher Education, 27(11), 4-8.

Lundy-Wagner, V. C., Veenstra, C. P., Orr, M. K., Ramirez, N. M., Ohland, M. W., & Long,

R. A. (2014). Gaining access or losing ground? Socioeconomically disadvantaged

students in undergraduate engineering, 1994-2003. *Journal of Higher Education, 85*(3),

339-369.

Mallette, Bruce I., & Cabrera, A. F. (1991). Determinants of withdrawal behavior: An

exploratory study, *Research in Higher Education, 32*(2), 179–194.

Mayo, T. (2013). First-year course requirements and retention for community colleges.

Community College Journal of Research and Practice, 37, 764-768.

doi:10.1080/10668921003723292

McClenney, K. (2007). Lessons emerge from five years of research on community college

students. *The University of Texas at Austin: The College of Education News Archive*.

Retrieved from <http://www.edb.utexas.edu/education/news/2007/1420/>

McCullough, C. A., Jones, E. A., & Cendana, P. (2007). Assessment plan implementation

in university 101. *Assessment Update, 19*(4), 3-5.

McDonald, D., & Farrell, T. (2012). Out of the mouths of babes: Early college high school

students' transformational learning experiences. *Journal of Advanced Academics, 23*(3),

217-248.

- McLeod, P. L. (2013). Experiential learning in an undergraduate course in group communication and decision making. *Small Group Research*, 44(4), 360.
doi:10.1177/1046496413488217
- Merriam, S. B. (2004). The role of cognitive development in Mezirow's transformational learning theory. *Adult Education Quarterly*, 55(1), 60-68.
doi:10.1177/0741713604268891
- Mezirow, J. (1997). Transformative learning: Theory to practice. *New Directions for Adult & Continuing Education*, (74), 5.
- Miranda, V. (2011). *Effectiveness of peer mentoring and college success courses on developing the self-efficacy of first-year community college students* (Doctoral dissertation). Retrieved from ProQuest LLC. UMI 3487459
- Moltz, D. (2009). Community college accountability. *Inside Higher Ed*. Retrieved from <https://www.insidehighered.com/news/2009/10/07/accountability>
- Mueller-Joseph, L. (2007). Classroom assessment. *Journal of Security Education*, 2(4), 47-53. doi:10.1300/J460v02n04_05
- Mundt, M. H. (1998). The urban university: An opportunity for renewal in higher education. *Innovation Higher Education*, 22(3), 251-264.
- Murphy, E. J. (2007). A review of bloom's taxonomy and Kolb's theory of experiential learning: Practical uses for prior learning assessment. *Journal of Continuing Higher Education*, 55(3), 64-66.

National Center for Education Statistics. (2014, May). Characteristics of postsecondary students. *The Condition of Education 2015: Chapter 4/Postsecondary Education*.

Retrieved from http://nces.ed.gov/programs/coe/pdf/coe_csb.pdf

National Center for Education Statistics. (1998, June). First-generation students: Undergraduates whose parents never enrolled in postsecondary education.

Postsecondary Education Descriptive Analysis Reports. Retrieved from

<http://nces.ed.gov/pubs98/98082.pdf>

National Center for Education Statistics. (2012, May). Postsecondary education. *The Condition of Education 2012: Section 3/Postsecondary Education*. Retrieved from

http://nces.ed.gov/pubs2012/2012045_4.pdf

National Center for Education Statistics. (2015, February). Projections of education statistics to 2022: Forty-first edition. *U.S. Department of Education*. Retrieved from

<http://nces.ed.gov/pubs2014/2014051.pdf>

National Center for Higher Education Management Systems. (2014, November 8). First-year retention: Retention rates—First-time college freshmen returning their second year.

How is Your State Doing? Retrieved from

<http://www.higheredinfo.org/dbrowser/index.php?submeasure=228&year=2010&level=nation&mode=data&state=0>

National Center for Public Policy and Higher Education. (2010, June). Beyond the rhetoric: Improving college readiness through coherent state policy. *A Special Report by the National Center for Public Policy and Higher Education and the Southern Regional Education Board*. Retrieved from

http://www.highereducation.org/reports/college_resuccessfadiness/CollegeReadiness.pdf

National High School Center. (2007, October). *Approaches to dropout prevention: Heeding early warning signs with appropriate interventions*. Retrieved from http://www.earlywarningsystems.org/wp-content/uploads/documents/NHSC_ApproachestoDropoutPrevention.pdf

National Student Clearinghouse Research Center. (2014, July 9). First-year persistence and retention rates by starting enrollment intensity: 2009-2012. *Snapshot Report: Persistence –Retention*. Retrieved from <http://nscresearchcenter.org/snapshotreport-persistenceretention14/>

Noel-Levitz, Inc. (2012). *Strategic enrollment planning: A dynamic collaboration*. Coralville, IA: Noel-Levitz, Inc.

Nora, A. (1987). Determinants of retention among Chicano college students. *Research in Higher Education*, 26(1), 31–59.

Ormrod, J. E. (2010). Characteristics of students at risk and why students drop out. Retrieved from <http://www.education.com/reference/article/characteristics-students-risk/>

Pascarella, E. T., & Terenzini, P. T. (2005). *How college affects students: A third decade of research*. San Francisco: Jossey-Bass.

Pascarella, E. T., & Terenzini, P. T. (1980). Predicting freshman persistence and voluntary dropout decisions from a theoretical model," *Journal of Higher Education*, 51(1), 60–75.

- Pollard, K. (2011, April). The gender gap in college enrollment and graduation. *Population Reference Bureau*. Retrieved from <http://www.prb.org/Publications/Articles/2011/gender-gap-in-education.aspx>
- Quillen, M. D. (n.d.). KCTCS proposal and budget narrative-CPE Senate Bill 1 implementation grant. Retrieved from <http://cpe.ky.gov/NR/rdonlyres/24C71754-FF06-4AC9-9361-71ACE31236F2/0/KCTCS.pdf>
- Ravitch, D. (2013). *Reign of error: The hoax of the privatization movement and the danger to America's public schools*. New York, NY: Alfred. A. Knopf.
- Red River College. (n.d.). Beatty-Guenter retention strategy. *Centre for Teaching Excellence Innovation & Research*. Retrieved from <http://air.rrc.mb.ca/Classroom%20Support/faculty-academic-advising/Retention%20Strategy%20Model.htm>
- Redmond, J. C., Boucebci, M., & Engstrom, J. D. (2013). Engaging the roadmap to student success. *Peer Review, 15*(2), 5-7.
- Reed, J. H., & Kromrey, J. D. (2001). Teaching critical thinking in a community college history course: Empirical evidence from infusing Paul's model. *College Student Journal, 35*(2), 201.
- Shaffer, D. F. (2012). Are community colleges prepared to prepare the 21st century workforce? *Community College Week, 25*(5), 4.
- Smith, B. (2007). Accessing social capital through the academic mentoring process. *Equity & Excellence in Education, 40*(1), 36-46. doi: 10.1080/10665680601088465

Smith, J. S., Sungtaek, L., & Bone, S. (2008). Community college strategies. *Assessment Update*, 20(3), 11-13.

Southern Regional Education Board. (2015, February). Community colleges in the south: Strengthening readiness and pathways. *The Report of the SREB Community College Commission*. Retrieved from

http://publications.sreb.org/2015/CommCollegeCom_2015.pdf

Stout, K. A. (2006). Transforming students' first-year experience into long-term success. *Presidency*, 9(1), 46-48.

Stovall, M. (2000). Using success courses for promoting persistence and completion. *New Directions for Community Colleges*, 112.

Strayhorn, T. L. (2006). Factors influencing the academic achievement of first-generation college students. *NASPA Journal (National Association of Student Personnel Administrators, Inc.)*, 43(4), 82-111.

Terenzini, P. T., & Pascarella, E. T. (1977). Voluntary freshman attrition and patterns of social and academic integration in a university: A test of a conceptual model. *Research in Higher Education*, 61(1), 25-43.

The White House: Office of the Press Secretary. (2015, January 9). *Fact sheet-White house unveils America's college promise proposal: Tuition-free community college for responsible students*. Retrieved January 1, 2016, from

<https://www.whitehouse.gov/the-press-office/2015/01/09/fact-sheet-white-house-unveils-america-s-college-promise-proposal-tuitio>

Thoonen, E. J., Slegers, P. C., Oort, F. J., Peetsma, T. D., & Geijssel, F. P. (2011). How to improve teaching practices: The role of teacher motivation, organizational factors, and leadership practices. *Educational Administration Quarterly*, 47(3), 496-536.

doi:10.1177/0013161X11400185

Ting Man, T. (2005). Open admissions, controversies, and CUNY: Digging into social history through a first-year composition course. *History Teacher*, 38(4), 469-482.

Tinto's theory. (n.d). Tinto's (1993) dimensions of institutional action. Retrieved from <http://www.ectorpy.com/Tinto.htm>

Tinto, V. (2009). How to help students stay and succeed. *Chronicle of Higher Education*, 55(22), A33.

Tuckman, B. W., & Kennedy, G. J. (2011). Teaching learning strategies to increase success of first-term college students. *Journal of Experimental Education*, 79(4), 478-504.

United States Department of Education. (2011, January). Fair, flexible and focused: President Obama's blueprint for accountability. Retrieved from <http://www2.ed.gov/policy/elsec/leg/blueprint/faq/accountability.pdf>

University (Four-year institution). (n.d.). In *Integrated Postsecondary Education Data System: Glossary*. Retrieved from <http://nces.ed.gov/ipeds/glossary/?charindex=F>

University of Hawai'i System. (2013, September). Impact of enrolling in 15 or more credits on selected performance measures: First-time freshman at the UH community colleges fall 2009 to fall 2012. *Institutional Research and Analysis Office*. Retrieved from

[http://15tofinish.com/reference/15 to Finish UHCC Combined Report-September 2013.pdf](http://15tofinish.com/reference/15%20to%20Finish%20UHCC%20Combined%20Report-September%202013.pdf)

University of Hawai'i News. (2014, December 1). UH's 15 to finish initiative gains local, national traction. Retrieved from <http://www.hawaii.edu/news/2014/12/01/uhs-15-to-finish-initiative-gains-local-national-traction/>

University of South Carolina: University 101 Programs. (n.d.). Goals, learning outcomes and course requirements. Retrieved from <http://www.sc.edu/univ101/aboutus/goals.html>

University of South Carolina: University 101 Programs. (n.d.). History of the first university seminar & the university 101 program. Retrieved from <http://sc.edu/univ101/aboutus/history.html>

University of South Carolina: National Resource Center for First-Year Experience and Students in Transition. (n.d.). *2012-2013 national survey of first-year seminars*.

Retrieved from [http://www.sc.edu/fye/research/surveys/survey_instruments/pdf/Executive Summarie s 2013 National Survey FirstYearSeminars.pdf](http://www.sc.edu/fye/research/surveys/survey_instruments/pdf/Executive_Summarie_s_2013_National_Survey_FirstYearSeminars.pdf)

Upcraft, M. L., Gardner, J. N., & Barefoot, B. O. (2005). Principles of good practice for the first college year and summary of recommendations. In M. L. Upcraft, J. N. Gardner, B. O. Barefoot, & Associates, *Challenging & supporting the first-year student* (pp. 515-524). San Francisco, CA: Jossey-Bass.

Van Soom, C., & Donche, V. (2014). Profiling first-year students in STEM programs based on autonomous motivation and academic self-concept and relationship with academic achievement. *Plos ONE*, 9(11), 1-13. doi:10.1371/journal.pone.0112489

Voigt, L. & Hundrieser, J. (2008). Student success, retention, and graduation: Definitions, theories, practices, patterns, and trends. *Noel-Levitz Retention Codification*. Retrieved from

<http://www.stetson.edu/law/conferences/highered/archive/media/Student%20Success,%20Retention,%20and%20Graduation-%20Definitions,%20Theories,%20Practices,%20Patterns,%20and%20Trends.pdf>

Walpole, M. (2003). Socioeconomic Status and College: How SES Affects College Experiences and Outcomes. *Review of Higher Education*, 27(1), 45-73.

Wilkinson, R. B., Taylor, J. S., Peterson, A., & Machado-Taylor, M. (2007). A practical guide to strategic enrollment management planning in higher education. *Educational Policy Institute*. Retrieved from

<http://www.educationalpolicy.org/pdf/SEM%20Guide.pdf>

Willis, K. (2016, February 1). Kentucky universities to work with Gov. Bevin on creation of performance-based funding plan [Radio broadcast episode]. In the Public Radio Service of Western Kentucky University (Producer). Bowling Green, KY: WKU Public Radio.

Wyman, N. (2015, January 13). For a better economy: Obama's free community college program can really land you a high-paying job. [Quartz]. Retrieved from

<http://qz.com/325442/obamas-free-community-college-program-can-really-land-you-a-high-paying-job/>

York, T. T., Gibson, C., Rankin, S. (2015). Defining and measuring academic success.

Practical Assessment, Research, and Evaluation. Retrieved from

http://www.researchgate.net/publication/278305241_Defining_and_Measuring_Academic_Success

Young, D. G., & Keup, J. R. (2014). *Surveying the national landscape of first-year*

seminars: A high-impact practice [PowerPoint slides]. Retrieved from

http://sc.edu/fye/research/research_presentations/files/2014/ACPA%202014%20DGY_JKeup.pdf

APPENDIX A:
KENTUCKY COMMUNITY AND TECHNICAL COLLEGE SYSTEM: 16 LOCATIONS AND
ENROLLMENT

APPENDIX A: KENTUCKY COMMUNITY AND TECHNICAL COLLEGE SYSTEM:

16 LOCATIONS AND ENROLLMENT

Snapshot of KCTCS's 16 Locations and Impact on Enrollment		
Locations	Number of Students	Percentage of Total
Ashland Community & Technical College	3356	4%
Big Sandy Community & Technical College	4659	6%
Bluegrass Community & Technical College	10961	13%
Elizabethtown Community & Technical College	7353	9%
Gateway Community & Technical College	4594	5%
Hazard Community & Technical College	3465	4%
Henderson Community & Technical College	2000	2%
Hopkinsville Community & Technical College	3568	4%
Jefferson Community & Technical College	13667	16%
Madisonville Community & Technical College	4434	5%
Maysville Community & Technical College	3510	4%

Table 1 (continued)

Locations	Number of Students	Percentage of Total
Owensboro Community & Technical College	4162	5%
Somerset Community & Technical College	7017	8%
Southcentral Kentucky Community & Technical College	4115	5%
Southeast Kentucky Community & Technical College	3661	4%
West Kentucky Community & Technical College	6505	8%
Totals (N=83,671)		

Table 1

APPENDIX B:

GENERIC SYLLABUS FOR ACHIEVING ACADEMIC SUCCESS (FYE105)

APPENDIX B: GENERIC SYLLABUS FOR ACHIEVING ACADEMIC SUCCESS (FYE105)

FYE 105 Achieving Academic Success

Generic Syllabus

Instructor:

Phone:

Office:

Email:

Office Hours:

ONLINE SYLLABUS AND COURSE INFORMATION (Please access Blackboard to view Syllabus and Schedule of Class Assignments for future reference)

REQUIRED TEXT/MATERIALS

- Thriving in the Community College and Beyond, Joseph Cuseo, Aaron Thompson, Julie A. McLaughlin and Steady H. Moono, 2nd Edition
- Flash drive
- Notebook Paper/Notebook
- Internet Access/Blackboard
- KCTCS official email (This will be the primary source of communication)

Students are responsible for having assigned text and materials at all classes.

Due to ongoing issues with server compatibility and other email problems, Faculty and students use their official KCTCS email to communicate. This will be strictly adhered to throughout this course.

Appendix B (continued)

LEARNING OUTCOMES

1. Demonstrate the development of an academic plan using career research information
2. Demonstrate use of college resources
3. Demonstrate knowledge of appropriate college professionalism and academic behaviors

COURSE DESCRIPTION

Introduces new students to strategies that promote academic, interpersonal, and intrapersonal success in the college environment. Aims to foster a sense of belonging, promote engagement in the curricular and co-curricular life of the college, and provide opportunities for students to develop academic plans that align with career and life goals.

CORE COURSE CONTENT

Campus Information/Orientation to College

1. Campus resources (including community resources)
2. College etiquette (differences between high school and college)
3. Policies and Procedures (syllabus/Student Code of Conduct)
4. College vocabulary (common terms, reading a schedule, etc.)
5. Information Technology/Electronic Resources (Blackboard, email, Website, student self-service, online instruction/modes of instruction)

Appendix B (continued)

Strategies for Academic Success

1. Self-Analysis/Motivation & Attitude/Learning Styles
2. Testing and test anxiety/Memory
3. Note-taking/study skills
4. Critical thinking

Life Skills

1. Financial literacy
2. Self-Responsibility & Self-Management (Time Management/Health & Wellness)
3. Diversity

Academic & Career Planning

1. Career exploration/Career planning module (goal-setting)
2. Educational plan and how aligned with Career choice (APP)
3. Online registration process

ATTENDANCE POLICY

Class participation and attendance is vital to successful completion of this course.

Participation is defined as being actively involved in the course activities.

1. Students who miss more than the equivalent of two weeks of class (4 classes) will not receive a passing grade, unless the instructor approves additional class absences on an exceptional basis.
2. Being tardy or leaving class early will count as ½ absence.

Appendix B (continued)

Required Student Participation in Attendance Policy

If a student misses a class session(s), he or she should notify the instructor in person, by email, in writing, office voicemail, or through Blackboard.

Failure to notify the instructor is an automatic unexcused absence, and the absence cannot be made up. The instructor will be the final arbitrator of whether the absence can be made up and/or if the absence is an exception.

Late Work and Make Up Policy

It is the responsibility of each student to read all assignments. If you should miss an assignment, it is the student's responsibility to contact the instructor to see if the work may be made up and if so to reach a timeline acceptable to both parties for completion. According to the discretion of the instructor, late work may not be accepted or it may be severely penalized. In case of absence, students should be able to keep up with and turn in on time any missed assignments. Under all circumstances, it is the student's responsibility to make arrangements for making up any work that he/she missed during an absence.

STUDENT EVALUATION

Grades that can be earned for this course are A, B, C, D, E, W, and I. For more information on grading, visit: <http://legacy.kctcs.edu/catalog/>

NOTE:

"I" grades are only given in extenuating circumstances and only at the discretion of the instructor.

Appendix B (continued)

NOTE:

If you stop attending class and do not officially withdraw from this course, you will receive a grade of "E." The last day to withdraw from this course without an instructor signature is March 10, 2014. If you are on financial aid, check with the Financial Aid Office to determine how withdrawing from this course will affect your financial aid.

Grades will be based on:

Exams	10%
Presentations	10%
Homework Assignments/Participation	10%
Quizzes	10%
Group Assessments	10%
Capstone Project	50%

Grading scale

100 – 90	A
89 – 80	B
79 – 70	C
69 - 60	D
59 or below	E

NOTE: As a requirement for this class, each student will be required to meet with an academic advisor at a minimum of one meeting during the semester.

Appendix B (continued)

Examinations: All tests will compose of multiple choice; T/F; short answer; fill – in the blank; mini presentations, and/or essay. Each test will count 100 points toward the final grade.

WITHDRAWAL POLICY

Students may drop the course at any time before midterm, March 10, 2014, without the instructor's permission. If a student wishes to withdraw after this deadline, students must have the instructor's permission to withdraw by seeking out the instructor either before or after the class period, or during office hours prior to May 2, 2014, the last week of class.

Review of emergency procedures in case of FIRE, TORNADO, and ACTIVE SHOOTERS.

REASONABLE ACCOMMODATION

Students with disabilities who require accommodations (academic adjustments and/or auxiliary aids or services) for this course must contact a staff member in the Disability Support Services (DSS) office. Please do not request accommodations directly from the professor or instructor.

To schedule an appointment with a Disability Support Services staff member on any campus, call (859) 246-6728, (859) 246-6753 TTY or (866) 774-4872 extension 6728 (Toll Free).

Appendix B (continued)

DISRUPTIVE BEHAVIOR

Classroom behavior that seriously interferes with either

1. the instructor's ability to conduct the class or
2. the ability of other students to profit from the instructional program

will not be tolerated.

When a student's behavior in a class is as seriously disruptive as to require immediate action, the instructor has the authority to remove a student from the class. Disruptive class behavior includes, but is not limited to, verbal or physical threats, repeated obscenities, unreasonable interference with class discussion, making/receiving personal phone calls, pages, or texts during class, leaving and entering class frequently in the absence of notice to instructor of illness or other extenuating circumstances, and persisting in disruptive personal conversations with other class members. Students engaging in these activities may be marked absent and/or asked to leave. Referrals may be made to other departments or administrators if needed.

All cell phones or other electronic devices must be turned off and put away during class.

You must request an exception from the instructor to this policy for any emergency situation prior to the start of class.

CODE OF STUDENT CONDUCT

All rules and regulations set forth in the current edition of the KCTCS Community College Code of Student Conduct will be followed in this course. The Code of Conduct is available online at:

Appendix B (continued)

http://www.kctcs.edu/Students/Admissions/Academic_Policies/Code_of_Student_Conduct.aspx.

PLAGIARIZED WORK

Plagiarism is a serious academic offense and will be dealt with according to the policies set forth in the KCTCS Code of Student Conduct, available on-line at

<http://www.kctcs.edu/Students.aspx>

Please take note of the following:

Section 2.3.1.1 reads, in part: Plagiarism is the act of presenting ideas, words, or organization of a source, published or not, as if they were one's own. All quoted material must be in quotation marks, and all paraphrases, quotations, significant ideas, and organization must be acknowledged by some form of documentation acceptable to the instructor for the course.

Plagiarism also includes the practice of employing or allowing another person to alter or revise the work that a student submits as the student's own. Students may discuss assignments among themselves or with an instructor or tutor, but when the actual material is completed, it must be done by the student and the student alone. The use of the term "material" refers to work in any form including written, oral, and electronic.

Section 2.3.2 reads, in part: For instances of academic dishonesty related to earning grades the instructor may implement any of three sanctions: A) a failing grade for the specific assignment; and/or B) a reduced grade for the course; and/or C) a failing grade for the course

Appendix B (continued)

Also see the Student Code of Conduct for policies regarding academic integrity:

<http://www.kctcs.edu/student/code.htm>

SAP STATEMENT

If you receive grants and/or loans to pay for this class, you should be aware that withdrawing or failing this class may affect your future financial aid eligibility. You should review the Financial Aid Satisfactory Academic Progress (SAP) policy for additional information. Contact the Financial Aid Office for a copy of the SAP policy. All students are expected to attend class and have the required textbook(s) even though you have not received your financial aid or you may have an appeal in process.

Further information about the SAP policy is located at:

https://bluegrass.kctcs.edu/financial_aid/keeping_your_aid/satisfactory_academic_progress

POLICIES FOR ONLINE COURSES

Technical Support

For 24/7 help with technical problems, contact Blackboard Technical Support at (866) 590-9238. If the system is down when an assignment, posting, or test is required/due, I will notify you about a new posting deadline when the system is working. Of course, students will not be penalized for Blackboard technical problems.

Appendix B (continued)

WEATHER AND CLOSING INFORMATION

Inclement weather or other emergencies may cause classes to be cancelled or delayed.

If classes are delayed, you are to report to school at the announced time and attend the class where you would NORMALLY be at that time. Information about cancelled or delayed classes will be posted on the college's website. Many local radio and television stations will also carry announcements. Instructors may send email messages and/or Blackboard announcements regarding assignments for a class that was cancelled.

Students are responsible for checking these sources for such messages. Please sign up for SNAP Text Alerts. SNAP policy can be viewed at <http://kctcs.edu/snap>

Review of emergency procedures in case of FIRE, TORNADO, and ACTIVE SHOOTERS.

Assignments for this course are due on the assigned due dates even if there are weather and/or emergency closures.

EOA

KCTCS is an Equal Opportunity Institution. We are committed to a policy of providing educational opportunities to all qualified students regardless of economic or social status, beliefs, sexual orientation, age, national origin, or physical or mental disability.

The instructor has provided me with a syllabus, class schedule, and assignment schedule. The instructor has discussed and responded to questions regarding the syllabus, class schedule, and assignment schedule, to my satisfaction.

Appendix B (continued)

Printed Name: _____

E-Mail: _____

Signature: _____

Date: _____

APPENDIX C

INSTITUTIONAL REVIEW BOARD EXEMPTION CERTIFICATION



EASTERN KENTUCKY UNIVERSITY
Serving Kentuckians Since 1906

Graduate Education and Research
Division of Sponsored Programs
Institutional Review Board

Jones 414, Coates CPO 2D
521 Lancaster Avenue
Richmond, Kentucky 40475-3102
(859) 622-3636; fax (859) 622-6610
<http://www.sponsoredprograms.eku.edu/>

NOTICE OF IRB EXEMPTION STATUS
Protocol Number: 16-122

Institutional Review Board IRB00002836, DHHS FWA00003332

Principal Investigator: **Luv'Tesha L. Robertson** Faculty Advisor: **Dr. Charles Hausman**
Project Title: **Assessing the Impact of First-Year Experience Courses on Student Success in Community and Technical Colleges**
Exemption Date: **2/16/2016**
Approved by: **Dr. Deborah West, IRB Member**

This document confirms that the Institutional Review Board (IRB) has granted exempt status for the above referenced research project as outlined in the application submitted for IRB review with an immediate effective date. Exempt status means that your research is exempt from further review for a period of three years from the original notification date if no changes are made to the original protocol. If you plan to continue the project beyond three years, you are required to reapply for exemption.

Principal Investigator Responsibilities: It is the responsibility of the principal investigator to ensure that all investigators and staff associated with this study meet the training requirements for conducting research involving human subjects and follow the approved protocol.

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

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

Other Provisions of Approval, if applicable: None

Please contact Sponsored Programs at 859-622-3636 or send email to tiffany.hamblin@eku.edu or lisa.royalty@eku.edu with questions.



Eastern Kentucky University is an Equal Opportunity/Affirmative Action Employer and Educational Institution