ABSTRACT OF CAPSTONE

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The Graduate School

Morehead State University

June 6, 2013
GOING THE DISTANCE:
A STUDY OF STUDENT SUCCESS RATES IN AN ONLINE PLATFORM

Abstract of capstone

A capstone submitted in partial fulfillment of the Requirements for the degree of Doctor of Education in the College of Education At Morehead State University

By

Della F. Pack
Staffordsville, Kentucky

Committee Chair: Christopher T. Miller, Professor
Morehead, Kentucky

June 6, 2013

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At the end of the Fall 2011 semester at Big Sandy Community and Technical College (BSCTC) a comparison of grade patterns in multiple CIS 100 - Introduction to Computers courses was analyzed. This analysis found online courses returned a higher failure rate than those taught in a classroom setting. Why was there a difference? Is the platform of choice for course content delivery causing their failure?

Using CIS 100 courses as the primary source (base) for this study, research was conducted to identify patterns that may contribute to unsuccessful completion of online courses. Data were compared among all CIS 100 and other online courses delivered by BSCTC during the Fall, Spring, and Summer terms for a period of three academic years (2009-10, 2010-11, and 2011-12). A detailed analysis of success (pass, fail, or withdraw) comparisons, student demographics and other characteristic data guided this study.

Further research in this study deliberated on strategies used by other higher education institutions to increase success rates in the online teaching venue, followed by recommendations for systematic changes for BSCTC.

The expected outcome of this capstone was to provide BSCTC faculty with valuable research data that would entice them to compare their student success rates and to adapt new strategies recognized by others to provide an overall course
development improvement strategy for their instructional success as well as the overall success rates for the college. Enhancing retention at BSCTC was the key element for conducting this study.

KEYWORDS: online learning, student success, demographics, retention, face-to-face
GOING THE DISTANCE:
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DEDICATION

This study has been dedicated to my family and friends who have supported me throughout my educational journey. One of my favorite quotes by Ghandi has carried me through my doctoral studies,

“Live as if you were to die tomorrow. Learn as if you were to live forever.”
~Mahatma Ghandi

Special dedication in memory of my grandmother Ida Stumbo Williams (1910-2003), a retired school teacher, who passed this world in 2003. Widowed at an early age she dedicated her life to her three beautiful daughters and to her students in eastern Kentucky. For years she educated primary age groups from the hills of the Appalachia at Salisbury School, a two-room school house located in Salisbury, Kentucky until she retired in 1970.

She always expressed the importance of education and was the primary reason why I chose education as my field of study. Years after retirement she continued to educate by tutoring her grandchildren and preparing her great children for school by teaching them how to read and write.

“Mom” Ida was more than my grandmother. She was my mentor.
ACKNOWLEDGEMENTS

My grandmother had always expressed the importance of education and that the mind is a terrible thing to waste. These morals continue to guide me and are true to my heart as an educator in eastern Kentucky.

Since 1986, I have worked at a postsecondary institution and have witnessed many walks of life and find students struggling to attain their credentials. For this reason, I set my own personal goals and dedicated the last ten years working toward completion of higher levels of study. I want to give back to my community by reaching out to those students who have experienced barriers along their pathways. By performing research on student success my goal is to implement improvement strategies in my classroom as well as the online platform to motivate my students to learn because their success if my success.

The implementation of this research study could not have occurred without the guidance and support of various people outside of my family and friends. I would like to thank the administration, faculty, staff and students of Big Sandy Community and Technical College who have continued to motivate me throughout my doctoral studies.

Foremost, I would like to express gratitude to my committee chair, advisor, professor, and friend, Dr. Christopher Miller, who has continuously supported and guided me throughout my tenure at Morehead State University and to the remaining committee members, Dr. Deborah Abell and Dr. Richard Roe who not only served as my professors but as mentors throughout this doctoral research process. May God bless each of you today and in the future.
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Chapter 1
Introduction

Community colleges are altering the way they are conducting business by analyzing data to self-evaluate the effectiveness of the institution (Rutschow, 2011). Their strategic plans consist of strategies to enhance student performance and success. Data were collected to determine where students may be falling behind, thus placing them in jeopardy of failing or dropping out. The research performed on Big Sandy Community and Technical College (BSCTC) retention identified areas where students are failing or withdrawing and was used to guide systematic change to enhance retention at BSCTC primarily in the online platform. Further research will be conducted to form a needs analysis referencing the information needed to address the retention issues identified in this study. A needs analysis requires planning, collecting and analyzing data and preparing a final report outlining the key findings. Due to the insufficiency of the data collected a white paper outlining the recommendations of what additional data are needed and how to extract that data to make the decisions needed to move forward in addressing retention enhancement at BSCTC.

Online learning has changed the way students learn as well as how teachers teach. By providing students a 24/7 access, this non-traditional format of course delivery has been the learning method of choice for the working class and non-traditional students for over a decade (Carr, 2000). Therefore, it is essential to the success of a postsecondary institution to ensure success in both face-to-face (F2F) and
online courses. Regardless of the venue of course delivery, the competencies, expectations, and levels of collaboration should be equivalent.

BSCTC provides higher education opportunities in order to prepare students for transfer or for immediate entry into the workforce. To meet those goals, BSCTC strives to advance excellence and innovation in teaching, learning, and service and to increase student access, transfer, and success. Retention is essential to meeting these goals and leads this study.

Enhancing student retention in the online environment at BSCTC is the main focus, however the necessary data to help understand how to enhance student retention was not available. Thorough data collection of online student demographics is needed to assist with the needs analysis approach to identify areas that need attention. What is immediately necessary is a set of recommendations on procedures needed to collect more beneficial data will be provided to BSCTC leadership.

Enrollment figures do not identify whether or not BSCTC is meeting these goals. It is important to discover whether or not a student has reached their academic goal and/or attained their degree and, more importantly, determine if BSCTC is providing effective learning experiences. This capstone focused on the necessity to perform a needs analysis to identify data collection tactics that would highlight detailed demographics of unsuccessful online students. A white paper was developed to make recommendations for enhancing data collection to the BSCTC administration to assist in guiding the process in identifying the type of data needed and the process of collecting the data to address institutional retention issues.
The main focus of this study, even though the number of completers is important, was to determine if BSCTC online courses were as successful as their F2F courses and to recommend strategies to enhance retention. Based on the data collection performed during this study it was recognized that more inclusive data collection is necessary. A white paper outlining the findings of this study was constructed to present to the leadership of BSCTC with the intent to improve student success and retention. Recommendations will include the need to perform a needs analysis by collecting more in-depth data that would assist in identifying the steps to pursue retention enhancement.

As reported in educational journals and various online resources, distance learning faculty have performed research over the past several years to identify strategies to improve online learning, to enhance the online learning environment, and to recognize trends for improving retention in online courses (Jost, 2004; Ali, 2009; Clay, 2008; Dietz-Uhler, 2007; and Obrien, n.d.). These strategies were discussed throughout this capstone.

Online learning is designed to offer learning opportunities to many students who cannot attend classes on campus due to scheduling conflicts, childcare, work or other commitments; but, it is not for everyone. There are several skills that would make it easier for a student to be successful in an online environment. These include basic skills such as the ability to send, receive, and read email, upload and download files, install plug-ins, and perform web-based research. Each of these skills are necessary to communicate with instructors and peers and to perform assignments
throughout the distance learning experience. In addition to these abilities, reading and writing play a significant role in online success; therefore, the student must possess strong reading and writing skills.

When completing the admission process at BSCTC, students are required to take the ACT Compass placement test, if they have not taken or have scored below standards on the ACT exam. The findings from this assessment determine if remedial studies are required for a student and will guide academic advisors in placing the student in the required transitional courses to address deficiencies. Effective communication requires both reading and writing skills. In view of that, students with deficiencies in reading or writing should not take an online course until they have completed their transitional/remedial courses which include developmental mathematics, writing, and reading. Unfortunately, in most cases we do not find this to be the circumstance. Students need to be held responsible for their own success, because online courses require self-discipline and leave no room for procrastination (KCTCS, 2011). Neal Thakkar (2009) stated that modern technology makes it easier for students to procrastinate. Students may find themselves addressing emails, chatting with a friend, surfing the net, or engaging in other media associated distractions (Thakkar, 2009). Faculty need to utilize social medias such as Facebook, Twitter, and YouTube to motivate students.

This capstone study concentrated on the trends for improving retention in online courses by first identifying who is failing. Are there similarities in failure rates from F2F courses and online courses? How do the completion rates sum up when
comparing these platforms? Once we have determined who is failing, then we can concentrate on the cause of their unsuccessful performance. A needs analysis approach was recommended to collect the data necessary to identify similarities of student demographic data. Innovative questions to evaluate include: Are transitional student’s successful in the online platform? How many students complete their transitional work before enrolling in online courses? What percentage of failures in CIS 100 completed their transitional work prior to enrollment?

**What Others are Doing**

To promote student success, some colleges are known to require freshmen to take a one credit hour course to introduce them to the online environment. Strategies practiced by other entities were explored to identify trends such as online mentors and strategies being used to prepare students for online success. Exploration for practices used by others assisted with finding new methods to promote faculty professional development initiatives. Implementation of these new strategies was used to entice faculty to commit to a systematic and comprehensive continuous quality assurance process.

According to KCTCS (2011) Learn by Term Orientation, traits for a successful online student to possess are that they must be self-directed and motivated. Additional skills include the need to feel comfortable with the computer and its operations, and the ability to send, receive, and read email. Possessing email skills are necessary to effectively communicate with their instructors and peers (KCTCS, 2011). As reading and writing play a significant role in online success, academic
advisors should make students aware of the necessities and should advise their students accordingly to improve probability for success. Additional data collection procedures are necessary to identify how many students take CIS 100 before enrolling in additional online courses.

Other than remedial assessment, the advisor should determine if the student is best fit for a technical program or an associate degree. Technical programs prepare them for immediate entry into the workforce upon graduation and are advisable if the student does not want to seek a higher level of education. An associate degree provides general education certification for transfer to a four-year institution and may not be the best fit for their post-graduation goal. The goal of BSCTC is not only to provide access but to promote success. These same assessment skills can be used to determine if students are ready for online courses. Recommendations to require online pre-assessment will play a small role of the needs analysis approach to enhance retention in online courses provided by BSCTC.

Statement of the Problem

As stated by Rutschow (2011), community college enrollment is soaring to high levels in the United States. She projected that approximately 8 million students took courses for credit during the Fall 2009 term. Setting the growth of enrollment aside, the success and number of credentials awarded remain in the forefront of institutional goals.

Community college enrollments increased nearly 17 percent. She attributes the increase to the open door accessible policies of the community college that is
providing high quality education to the non-traditional, low-income, and minority students. According to Rutschow (2011) these students are the population that requires extra attention because nearly 50% of these identified non-traditional students do not complete their credential. Low completion rates constitute the need to implement new policies and procedures to mandate the involvement of community colleges to perform better (Rutschow, 2011).

Retention rates at BSCTC showed online success rates for Fall, 2010, averaged 72.6% compared to 77.8% of traditional F2F courses. This signaled a concern considering one criteria of a community college’s success is their retention rates. Since online enrollment plays a big part in the total headcount of BSCTC, it is crucial that course delivery is providing the same results regardless of the platform. Based on the findings of Fall 2010, the primary purpose for this study is to identify causes for lower retention rates in the online courses provided by BSCTC.

A more detailed analysis of demographic data guided the need to construct a needs analysis white paper to present to BSCTC leadership to enhance retention primarily in the online environment. Retention data from courses delivered by BSCTC in both online and F2F platforms were extracted for analysis.

When comparing grade patterns in multiple CIS 100 courses delivered by BSCTC during Fall, 2011, it was found that the online courses returned a higher failure rate than those taught in a classroom setting. Why was there a difference? By analyzing the demographic data of courses provided by BSCTC and comparing the
success rates, it was possible to recommend a systematic change to address student retention initiatives.

Approaches to assist with enhancing retention and improving online course delivery will include implementation of new policies and participation reporting strategies. Further analysis will include the need to find out who is withdrawing from online courses and identifying reasons for withdrawal. A survey will be recommended to administer to BSCTC students who fail or withdrew from online courses. Other discussions will include the need for faculty development initiatives. Following is a brief description of how early alert reporting, identifying reasons for withdrawal and faculty development will contribute to enhancing retention at BSCTC.

**Early Alert**

In the past, faculty have struggled to find initiatives to encourage students to complete their coursework in a timely manner and to avoid procrastination. Early warning signs such as identifying students who are failing to participate at a satisfactory level need to be in place to assist with early detection of students who stop coming to class or who are falling below satisfactory levels.

Unsuccessful performances lead to early withdrawals or failures, however not every withdrawal is related to academic difficulties (Kleinman, 2011). Student’s personal lifestyles sometime interfere with their completion of the course and force them to withdrawal before the end of the term. There may be external factors beyond the control of the individual and institution that cater to the student’s unsuccessful
academic performance. These forces are at times unpredictable and uncontrollable. Therefore, the institution can provide student support services such as counseling and financial advising to assist with alleviating some of the burden’s interfering with the student’s academic success.

**Reasons for Withdrawal**

Reasons students drop online courses include financial challenges (41%), life events (32%), health issues (23%), lack of personal motivation (21%), and lack of faculty interaction (21%) (Kleinman, 2011).

Within the following chapters of this capstone study, a further look was taken into not only why students perform unsuccessfully but who is unsuccessful and when they are more unlikely to be successful. A characteristic approach identifying demographic data guided this research to identify who is more likely to be successful in the online environment and timeframes was analyzed to determine which terms are producing higher success rates.

**Faculty Development**

Prensky (2001) identifies one of the biggest problems facing education today is that “Digital Immigrant” instructors (those who did not grow up using technology) struggle to teach a population that speaks a different digital language. To effectively communicate with and motivate the digital aged students, faculty must demonstrate fundamental technical skills. Continuous professional development initiatives need to be implemented in order to keep abreast the ever-changing digital world (Prensky, 2001).
Is the cause of failure directly determined by the type of student or can it be faculty driven? Teaching postsecondary students online requires a well-rounded knowledge of technology. Faculty need to find ways to engage and retain first-year students to entice them to stay. Students entering college for the first time are derived from the Digital Age known as the “Millennial Generation” (Howe, 2000), because they have never experienced life without technology. These individuals are extremely comfortable with using the Internet as well as other technologies. Faculty need to motivate these students to learn by using various online resources and technologies.

How can we reach these students? Students can be motivated by integrating and incorporating new technologies into the curriculum. Faculty need to hone their technology skills because “speaking their language” caters to a higher retention rate.

**Capstone Focus**

This capstone initially focused on methods used to improve student learning in an online learning environment and to improve online learning retention rates but due to findings determined that the more immediate problem was collecting the data to determine what may be the reasons for decreased retention rates. It is important to understand why students fail and identify what contributes to their failure. A detailed look at the stereotypes that are enrolled in online courses was compared to those enrolled in F2F courses. Does demographics play a role in the student’s success? Research was conducted to break down the barriers and identify who is successful, what they are failing, where they are more successful, or why they are successful.
After identifying these factors, the study will be provided to the faculty with measurable data to explore for course improvement initiatives. Implementation of newly defined strategies furnishes course quality assurance measures which assists with improving online course success rates. These same strategies can be manipulated to incorporate these same strategies into their F2F courses. The overall goal of this study was to enhance retention at BSCTC.

By making this study available to BSCTC faculty and administration, it will provide a more personal approach for retention that will list detailed data involving local students and identify who among our student population took online courses and what factors contribute to whether or not they may be successful.

By understanding the reasons for failure or withdrawal, faculty will be able to guide students toward the student service programs that will increase their chance of being successful. Whether resources be tutoring, mentoring or skill building, the implementation will promote excellence in online learning.

**Strategies**

Strategies to be implemented include tutoring programs to assist students who seek assistance, faculty roster reporting that identifies students who are not participating or attending classes, and student service support initiatives that are accessible 24/7/365. Other resources to be implemented include:

- Mandatory orientation session
- E-learning mentors
• Technical support 24/7
• Mandatory faculty training
• Quality Assurance training

Research Questions

Retention has been identified as a problem for BSCTC not only in the online format but in the traditional course offerings as well. The overall intent is to increase retention in courses delivered by BSCTC which returned higher credential recipient numbers. A review of literature, needs analysis, and data analysis was conducted to form a systematic change proposal to present to BSCTC administration. To improve online and F2F course delivery success rates, retention of first-year students, and underprepared students, the following questions were explored through a needs analysis in this capstone:

1. Are online courses more successful than on-campus courses?
   If not, what can be done to introduce students to the online environment as if they were in a physical location rather than a virtual environment? What can be done to ensure student success in online programs?

2. What processes are being used by colleges to mentor online students and what strategies are being used to prepare students for online success?

   Given the success of KCTCS, the content provided throughout the upcoming chapters concentrated on the part that BSCTC is playing with ensuring better success
rates which continues the strategy to increase the number of credentials awarded to Kentucky citizens.

**Limitations of the Study**

The study was primarily focusing on BSCTC’s students enrolled during Fall 2009-Summer 2012. Identifying agents were removed from the research data received to avoid bias opinions and security. Data collected did not identify the reasons for failure, which would necessitate the need to provide a more detailed survey of students enrolled in each course. This study focused on the student body as a whole and did not single out individual student identities. The needs analysis will identify additional data essential to move forward with recommendation to Administration on the type of data needed and the method used to extract that data.

**Overview of the Study**

The study analyzed student data over a three-year period to assist with preparing a systematic change proposal for BSCTC. Data collections sorted demographic data to assist with answering the research questions. Data identified who is failing, what format of course delivery is returning higher success rates, and what levels of course delivery are returning higher success rates. Identifying agents assisted with addressing the overall problem identified with student retention.

All data received were analyzed and compared to identify any distinguishable trends. Data collection determined that there was an immediate need to develop retention strategies. A white paper was constructed to recommend the construction of new strategies to collect the data and to identify necessary criteria to assist with
retention issues. Retention has been identified as a problem, therefore, the next step is to move forward with making recommendations for systematic changes.

**Definitions:**

**Associate degree seeking:** Total number of students enrolled in associate degree programs in the fall semester.

**Degrees and credentials awarded:** Total number of diplomas, certificates, and degrees awarded at all levels during an academic year (July 1 – June 30).

**Total fall headcount enrollment:** Traditional measurement of student enrollment headcount from each college or university in the fall semester.

**Online Courses:** Courses taught completely online requiring students to visit a campus one or less times during the semester. (Some require a proctored exam which requires students to travel to a KCTCS institution.)

**F2F Courses:** Courses taught on-campus requiring students to meet in the traditional brick and mortar classroom setting while using the web to enhance course content.
Chapter 2
Review of Literature

For over a decade Big Sandy Community and Technical College (BSCTC) has gone the distance by providing higher education opportunities to the Commonwealth. To meet the demand for online learning BSCTC provides associate level courses in various formats. Instructional modes consist of face-to-face (F2F), hybrid, web-enhanced, and online. With the development of online courses, students are awarded an opportunity to obtain a two-year degree any place, anywhere, and at any time.

When offering the course content in an online environment, faculty are required to meet the same course competencies as the traditional classroom delivery. The desired outcome of any course is to promote excellence and success. This same goal is expected whether the course is provided F2F or online. The success rate of the online courses delivered by BSCTC was the focus of this capstone.

Research and assessment on student retention is an indicator of an institution’s commitment to improve student success which includes tracking persistence and graduation rates (College Board Advocacy, 2009). Hence, it is vital to the success of BSCTC to study retention rates and to recognize any insufficiencies.

Student retention is a concern for many institutions. Tim Culver (2011) observed that many colleges and universities study student retention but they do not base it on collected data making tracking difficult. Data is necessary to drive change.
He further explained how data-informed planning and action can help an institution with meeting their goals.

Retention drives graduation and completion rates which is the desired outcome of post-secondary student careers. Success strategies include careful planning which relies on dependable data collection. Analyzing data assists with making sound retention and success policies. Culver suggests that data collection should run across four broad categories: persistence, progression, retention and completion (PPRC). Exploring these four areas will assist in identifying an institution’s strengths and will analyze their needs.

To collect the data needed to guide this study on BSCTC retention enhancement it will involve cooperation of their Institutional Research (IR) department. Culver recommends certain steps to be performed for an effective planning approach. First there is a need to establish a retention planning team with membership from academics, student affairs, and finance/administration. Success mandates the inclusion of the IR department in the team. Next, one must identify and define PPRC measure relevant to the college. Data collection may involve several departments throughout the college to effectively evaluate. Planning can be revisited on an annual basis and restructured (Culver, 2011).

Retention policies and procedures are developed to lower the dropout rate and to narrow the achievement gap. However, neither grade retention nor social promotion is the answer. Colleges need policies that address retention before failure occurs (UCLA, 2006).
The following literature review identified patterns of online course retention rates as well as strategies utilized by other institutions to ensure quality and success. The purpose of online courses is to facilitate open access to education by promoting alternative means of delivery. Providing the service is only a small piece of the puzzle. A college must evaluate the success of their online program by researching success rates as well as identifying areas of weakness.

**Providing Access and Success**

Kentucky Community and Technical College System (KCTCS) provides citizens of the Commonwealth opportunity to obtain a higher education, as their tagline proposes, “Higher Education Begins Here”. KCTCS is housed by sixteen colleges throughout the state providing affordable and accessible higher education opportunities. From east to west KCTCS occupies approximately 70 campuses throughout Kentucky. Since the beginning of its existence, enrollment continues to grow and credentials are being awarded at increasing levels (see Figure 1).

KCTCS has continued to progress toward its baseline to target goals (25,084) for credentials awarded. Since 2001, it has increased the number of credentials awarded by 208.3%. Over a five-year interval KCTCS increased those numbers by 40% during the timeframe of 2005-10. An increase of 12% was generated during the years 2009-2011 which occurred during the timeframe of this study. During 2010-11 (July 1 – June 30) KCTCS awarded 27,813 credentials total (CPE, 2012).
Statewide metrics implicate that KCTCS awarded 7,899 associate degrees during the year of 2010-11 which returned a 113% increase from 2001-2002. Documented growth during the timeframe of this study (2009-2011) returned a value of 8.7% (CPE, 2012). Distance learning initiatives are catering to this increase by reaching out to those who cannot leave home to obtain a degree (Statewide Performance Metrics, 2013).

When previewing the percentages listed above, it is evident that KCTCS is meeting its goals of providing higher education to Kentuckians by awarding them opportunities to enter the workforce or to transfer to a four-year university. Providing
these services is fulfilling part of the goals and objectives of student access and success. The review of literature assisted with the analysis performed within this capstone project.

**Stronger by Degrees**

The Kentucky Council of Postsecondary Education (CPE) focused on initiatives to increase the number of credentials in the state of Kentucky. “*Stronger by Degrees,***” a strategic agenda for Kentucky Postsecondary and Adult Education (CPE, 2012) can play a significant role in increasing student success rates at the community college level. Strategic goals consist of four policy objectives outlining areas of concentration in college readiness, student success, research, economic, and communication development, and efficiency and innovation. Three of these areas (college readiness, student success, and efficiency and innovation) impacted the outcome of improving online retention efforts (CPE, 2012).

**College Readiness**

College Readiness policies outline in CPE’s 2010-11 strategic plan (CPE, 2012) impacted the success rates in college courses. Students are enrolling in postsecondary institutions and placing in remedial studies which prolong their timeframe before degree completion. CPE is focusing on initiatives to better prepare Kentucky high school students for their future. College Readiness policies impacting KCTCS and BSCTC include increasing the number of college-ready Kentuckians entering college, increasing the number of degree recipients and completion rates, and closing the achievement gaps among the minorities and low-income families. Data
addressing these areas was collected to evaluate BSCTC’s and/or KCTCS’s performance.

Senate Bill 1 (2009) directed postsecondary institutions to address the necessity of preparing high school students for immediate entry into a higher education institution. College Readiness is crucial to the success of postsecondary students. K-12 schools and postsecondary institutions are joining forces to reduce the need for remediation of high school graduates by 50% by 2014. By doing so the ultimate goal is to increase college completion rates of students.

High school students throughout the state are provided an opportunity to participate in intervention programs when ACT benchmark scores are not met. In 2011, the Council received federal grant money (GEAR UP Kentucky 3.0) to assist students with postsecondary readiness and enrollment.

KCTCS initiatives included implementing advance placement and dual credit courses to high school students. The overall goal of these initiatives is to increase the number of college degree recipients in Kentucky.

Student success policies include strategies for student access and success. By analyzing success rates at BSCTC, faculty was provided with recommendations for improving completion rates in both F2F and online courses.

KCTCS as well as BSCTC played a significant role in the implementation of meeting this strategy. By providing high quality postsecondary education at a fraction of the cost, it increased the overall worth of its community.
Transfer

Kentucky is initiating a seamless student transfer program in which KCTCS partnered with the four-year institutions to create transfer policies and guidelines. Students concentrated on completing 30 credit hours in general education studies rather than repeating and wasting time on courses that are not required (KnowHow2Transfer.org).

Strategies to provide transfer scholarships and program completion rates dictated the need to study success rates of postsecondary course providers. Student service initiatives to implement student learning and retention was a focus to meet this strategy.

The Kentucky Council on Postsecondary Education’s focus on efficiency and innovation can be directly related to online course offerings. Their goal, “Kentucky was stronger by creating new ways of serving more postsecondary students at a high quality in a challenging resource environment,” warrants the need to provide courses in various formats to meet the needs of the adult learners (CPE, 2012),

Going the Distance

Since 2000, KCTCS and BSCTC has provided online courses to reach out to the adult learner population. Course redesign initiatives allowed this alternative delivery format to populate. KCTCS enrollment has continued to rise over the past decade. Figure 2 reflects the change of enrollment from 2001 to 2011 for KCTCS which indicates a change of 53%. Even though the last reported data of 2010 to 2011
only brought forth a change of 2% the overall goal is to increase productivity (see Figure 2).

![Bar chart showing enrollment from 2001 to 2011.]

**Figure 2.** KCTCS total headcount enrollment occurring over a 10 year span. Source: Kentucky Council on Postsecondary Education Comprehensive Database (KPEDS), April 28, 2012.

Retaining students in an online environment is challenging. The change that has occurred over the past 10 years has impacted every student regardless of taking a course online or in a classroom. Technology has continued to involve the classroom as well as the business industry. Everyone has become more involved with using technology of some sort. What is left to be discussed is how the use of technology has impacted student success specifically online course deliverance (Seidman, 2012)?
The Impact of Technology

Marc Prensky (2001) identifies today’s students as “Digital Natives” because they are the first generation to grow up with technology in their homes. They think and process information differently and their thinking patterns are different than the older generations. Postsecondary classrooms and online courses are populated with various age groups which require various teaching methods and content formats (Prensky, 2001).

Online readiness. Students enroll in online courses without understanding the skills necessary to reach success. They take online courses hoping that the course was less time consuming or easier than a class taught in a brick and mortar classroom. Various colleges promote student success and require freshmen to take a course to introduce them to the college environment.

What skills are needed. What skills does a student need to be successful in an online course? Julie Harvard (2007), author of Study Kiosk, identifies key elements for a successful online student. Online students must have time management skills, self-motivation, ability to read and comprehend in text format (opposing live lectures), place to study free of distractions, and courage to ask questions and seek answers (Harvard, 2007).

To develop strong computer skills, it is essential to have literacy skills. Lower literacy individuals may not have the abilities or vocabulary to perform adequate web searches. To sustain interest in technology for adults with literacy challenges one needs to use motivational and engaging material. By using the web teachers can
motivate their students especially the low literacy learners. Low literacy students have difficulty comprehending course content and lack the ability to motivate themselves (Culler and Cobb, 2011).

An educator should always look for ways to increase student success regardless of the teaching mode. Should students be required to attend or participate in an online orientation? Should they be allowed to take an online course during their first semester? Should they be allowed to take an online class if they are assessed in transitional courses? Currently, BSCTC has no requirements for online students and had an overall retention rate of 77% during the Fall 2011 semester. Based on this data there is a need to identify transitional students as well as at risk students and provide tutoring services to online students as well as F2F students.

Students who enroll at a community college while deficient in math, reading, or writing contribute to student retention challenges. Students face barriers if they lack academic skills to complete college level courses. Developmental studies play a significant role on student retention and success rates (Bailey, 2009; Seidman, 2012). This population of students is who community colleges should seek out and invite to enroll for their first two years of postsecondary studies (Seidman, 2012).

**What Are Others Doing**

Retention strategies should consist of improving persistence and success of students. The devotion of resources to engage in retention efforts is a must. Retention efforts need to be more effective (College Board Advocacy, 2009).
Identifying ways to increase online retention is the motivation for this research. Before implementing strategies it is important to study approaches accomplished by other organizations.

According to Gould (2006), Pierce College found a way to increase student satisfaction in online courses. They require students to take a one-credit online course to serve as a freshman orientation. Students study time management and study skills and become better prepared to succeed in an online course.

He also found that student satisfaction in online courses has increased posting the course syllabus on the web, administering a learning-styles inventory, explaining the importance of group work, using team contracts, using a variety of assessments, being flexible, and providing frequent interaction.

The results from a study performed by Suad Alhamlan revealed that the course syllabus meets the requirements of the students’ needs. However, areas of concern that did not return high evaluation were difficult textbook material and vocabulary and classroom interaction. It was suggested to focus on these items in accordance to meeting student needs.

Instructors need to construct their course syllabus to meet the needs of their students by using terminology that is understandable. Another source of communication in an online course is the textbook. Textbooks need to be evaluated to determine the level of reading (Alhamlan, 2013).

To improve student success and satisfaction in online courses, Washington State University Online began placing virtual mentors in their online courses.
Mentors would communicate with the students addressing technology needs as well as navigation. Faculty are provided more time to concentrate on the more important things in the course such as the course content by allowing mentors to work with the students on non-content related needs.

Universities such as Coppin State University and University of Maryland are using lecture capture technology such as Audacity to improve student success. Audio recording software of this type is a free download and easy to use. Faculty can record their lecture and upload the audio recording for future use and review for their students.

When College Board (2009) surveys several institutions it was found that many formed retention committees to assist with student persistence. Other resources consisted of early warning systems, advising requirements, and designated retention coordinators. Literature established that there was a close relation between orientation programs and persistence (College Board Advocacy, 2009).

Research performed for years has articulated the importance of orientation programs. Institutions have contributed student persistence to successful orientation programs that integrate students into the institution (College Board Advocacy, 2009).

To improve retention at BSCTC, there is a call for a systematic change in areas affecting the success of their students. To improve student success one may reference the 5 steps process the “Achieving the Dream” model:

Step 1: Leadership commitment.
Step 2: Use of data to prioritize actions.
Step 3: Stakeholder engagement.
Step 4: Implementation, evaluation, and improvement of strategies.  
Step 5: Establishment of a culture of continuous improvement.

Colleges need to include each of these steps to ensure access and success (Rutschow, 2011).

**What is the Attraction**

Students select or prefer online courses over F2F courses for various reasons as mentioned earlier in Chapter 1: Introduction. Some reasons may be out of their control such as the limited number of course offerings. Online courses have gained popularity during shorter sessions such as intersessions or summer. During summer terms full-time faculty are rarely on campus. This contributes to the increased number of online course offerings by most institutions. For example, during the summer sessions (May, June, or July) CIS 100 is only taught in the online format at BSCTC.

Who is attracted to online courses? Organizations are encouraging employees to enroll in online courses to hone their skills. Keeping employees updated on new technologies and other resources improved job performances and efficiency. Working professionals are attracted to online classes because it allows them the ability to manage their time by fitting their career advancement opportunities into their busy lifestyles (Goel, 2007).

**Enrollment**

During 2010-11 there were 101,449 students in Kentucky who were enrolled in distance learning courses which is equivalent to 35.2% of all postsecondary students throughout the state. When comparing these postsecondary distance learning
percentages, three of BSCTC’s service area counties (Floyd, Johnson, and Magoffin) scored in the 45.0%-62.9% range (CPE, 2010) which is the percentile of all postsecondary students in those counties who are enrolled in at least one or more online courses. These figures averaging 54% help support the concept that students are transforming to the online platform. Post-secondary schools rely upon these enrollment figures to reach FTE goals which determine state funding.

Students enroll in online courses, F2F courses, and sometimes enroll in both types. The BSCTC population of students includes each of these types and not only full-time but part-time students. Table 1 outlines the enrollment for the three-year period, Fall 2009-Summer 2012.

Table 1

*Online headcount for BSCTC by terms, Fall 2009-Summer 2012.*

<table>
<thead>
<tr>
<th>BSCTC Enrollment</th>
<th>Headcount Student Took at Least One Course</th>
<th>Headcount F2F Only</th>
<th>Headcount Online Only</th>
<th>Unduplicated Total Headcount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td>3,604</td>
<td>8,119</td>
<td>477</td>
<td>11,723</td>
</tr>
<tr>
<td>Spring</td>
<td>4,141</td>
<td>5,717</td>
<td>743</td>
<td>9,858</td>
</tr>
<tr>
<td>Summer</td>
<td>2,057</td>
<td>965</td>
<td>1,353</td>
<td>3,022</td>
</tr>
</tbody>
</table>

*Note.* These numbers reflect the total of students enrolled in each category throughout the three-year cycle. The totals reflect 3 Fall terms, 3 Spring terms, and 3 Summer terms.
When analyzing the figures above, it is acknowledged that the online course enrollment percentages increase during the Summer term with 44.8% of the total unduplicated headcount enrolled in online courses only. When comparing the big picture of the total enrollments it is evident that F2F is predominantly receiving higher numbers of enrollment. So, why do students select online courses?

Others suggest that students enroll in online courses merely to see “what college is all about.” Some find the expense of traveling and paying dormitory or other residential properties to be costly. Online courses eliminate those expenses. These factors may contribute to the lower success rates in the online platform (Seidman, 2012).

**How to keep them.** To increase retention rates colleges need to develop online courses that entice these individuals to stay. Online enrollment can save a college. However, if not carefully planned and implemented it can contribute to their failure rates as well.

Carr (2000) implies that online courses have a lower retention rate than F2F courses. She suggests that some of the reasons may be that online students are older than the traditional classroom students. Non-traditional students have other obligations outside the classroom that contributes to their failure or withdrawal (Carr, 2000).

Online enrollment has played a key factor in institutional headcount growth for the past decade. The true challenge is keeping those students. Why are they leaving? Whether it is because of the student’s busy lifestyle, lack of skills, or poor
inexperienced instructors, it is important for an institution to analyze and implement new strategies for improvement (Carr, 2000).

Who is more successful. Without personalized surveys of students who fail online courses it would be hard to stereotype a successful online student. Whether it be busy lifestyles, age, gender or other demographic characteristics the question remained unanswered. Online professionals have studied online success in the past. These findings assisted with drawing conclusions of who may be more successful in an online course.

Research performed by Bruce Jost (2004), Instructor at Jefferson Community and Technical College suggests that an online student requires different study skills than the traditional learner primarily due to the predominantly visual delivery method and relative lack of time structure. He suggested that older students perform better in online courses than younger, more traditional college students.

Jost also found that females do better in online courses than males and that African American students do worse than other ethnic groups in online courses. Furthermore, he found that grades in online courses were better than those in non-online courses (Jost, 2004). Are these findings still true?

Student progression and retention among first time college students is challenging especially within the student population of low income and developmental students. Transitional students are well noted for not completing their developmental courses. A study performed by Jaggars and Xu (2010) analyzed 23 Virginia community colleges and found that students who took online coursework in
early semesters were less likely to return the next semester. Students who took
developmental math and English were less likely to receive passing grades in college
level math and English and students who took a higher amount of credits in the online
platform were less likely to transfer to a four-year institution or attain a credential.
These findings suggest that online courses may drive low income and transitional
students to withdrawal or failure. Retaining this population of students is a challenge
and needs rectification (Jaggars, 2011).

**Why students choose online courses.** Determining who is successful is only
a small piece of the puzzle. One must determine why students chose to take online
courses especially during their first two years of postsecondary experience.

Two community colleges (Bellevue Community College and Edmonds
Community College) in Washington, that consider online enrollment as a crucial part
of their student population, wanted to conduct a study. They first wanted to
understand why students chose online courses and second to compare online retention
rates with F2F retention rates.

Lorenzetti (2005) found that students chose online courses for convenience.
Due to demands from work, family, and other day-to-day tasks, they find online
courses more convenient. Some select online courses for cost efficiency reasons.
They do not have to travel long distances to gain a higher education. Why do students
withdraw from online courses? She reported that their busy lifestyles kept them from
staying on task, forcing them to withdraw or fail. Additionally, students sometimes
find that the online course they are taking does not meet their expectations.
Lorenzetti (2005) conducted a study involving Bellevue Community College and Edmonds Community College in Washington with an attempt to find a way to boost online satisfaction. She found during this study that online students made better grades than F2F students. She attributed this success rate to the older population of online students. She also found that these students were more satisfied with online classes. She attributed this satisfaction to the 24 hours per day, seven days a week (24/7) student technical support service, a luxury that is not shared with F2F students (Lorenzetti, 2005).

In 2000, Carr reported online courses not being as successful due to the older student population. Four years later Jost found older students performing better in online courses and Lorenzetti echoed these findings in 2005. This capstone continued to investigate the success of online courses and identify who is more successful, when they are more successful, and where they are more successful.

When comparing online and F2F grades taught by the same instructor during Fall 2010-Fall 2011 in CIS 100, Introductory to Computers, courses it was found that the online courses returned a higher failure rate. Online courses returned a failure rate of 31 percent while F2F courses returned a much lower rate of 18 percent. This raised concern as to why the online environment was not retaining students at the same rate. The course requirements and content was identical. The only variation was the F2F interaction between the instructor and students.

During the Fall 2011, BSCTC enrollment inhabited 44.3% full-time students which suggest that the majority of the student body was non-traditional postsecondary
students. Enrollment by gender and ethnicity reported 50.9% were female and 93.4% were white students (KCTCS, 2011).

Fall 2011 queries reported that BSCTC online headcount was predominantly white (95.3%) and 66% of the online student population was female. Online students are comprised of various age groups. When comparing the various age groups from BSCTC students who take online courses only 58% of the population is from the traditional college student age group of 24 and under.

BSCTC’s demographics of online students returned the same result as Jost’s study (2004) when comparing the percentage of females that take online courses. However, further study needed to take place to determine if females perform better than males in online courses as claimed by Jost in his study. The demographics of the CIS 100 students was studied to determine if females enrolled in the courses are more successful and identified the age groups of the students who perform at a satisfactory level.

Community colleges are populated with students who come from low income families, first generation college students, and minorities. Access is one of the characteristics of a community college (Levin, 2009). However, being accessible does not always guarantee success. Recruiting and retention of these students improves only if the college is preparing these students for graduation, transfer, or immediate employment (Helfgot & Culp, 1995).

Retention plays a significant role in determining the success of a community college. The effectiveness of the institution determined their funding. The community
college experience provides the student with lifelong friendships, a foundation for successful transfer, workforce skills, and with a brighter future.

For decades student retention has been used to measure institutional effectiveness. A school’s revenue is determined by the full time enrollment (FTE) of students. Retention plays a significant role in the future of the college both academically and economically. Colleges are searching for initiatives that increased retention. Student engagement services and institutional involvement have become important to retention efforts. If a student becomes involved in their school’s activities, they developed a sense of belonging (Roman, 2007).

Is it demographical? Do older students perform better in on-campus courses? Whether the reason be demographics, implying that older students have greater difficulty meeting course requirements due to their busy lifestyles or if it is merely the nature of delivery of instruction. Skilled instructors can find ways to work around these obstacles (Carr, 2000).

Retention has been a focus of BSCTC for several years as should be for any educational institution. According to Martens, Lara, Cordova, & Harris (1995),

“institutions that effectively provide student services have four things in common: 1) a plan to periodically scan the environment to identify emerging population trends, 2) a data driven model that identifies who is recruited and admitted, determining whether or not there is a fit between student needs and support systems in place at the college, and tracks students during their time at the college and after they graduate, 3) a strong retention program that includes an early-warning academic alert system, and 4) a research program to find out who succeeds and who fails” (p. 8).
Early warning programs identify student at risk can be an important tool for student persistence. More than 50 percent of the institutions surveyed by College Board (2009) utilized an early warning system for first year students. One particular strategy used was mid-term grading reports (College Board Advocacy, 2009).

Alan Seidman (pg. 272) developed a formula for retention which served as a model for student success. He expresses that interventions require acceptance of change. Identifying factors in his formula include early identification and intervention.

\[
\text{RET} = \text{E ID} + (\text{E + IN + C}) \text{ IV}
\]

The Seidman Retention Formula, \(\text{Retention} = \text{Early Identification} + (\text{Early + Intensive + Continuous}) \text{ Intervention}\) is used as a student success tool (Seidman, 2004). A student’s skill level was evaluated during the early identification stage of this model followed by early interventions to address weaknesses early in the student’s academic career (Seidman, 2012, p. 272).

Faculty have the ability to build “Early Warning Alerts” in their course shells housed in Blackboard to alarm them of students who are at risk. They can create the rule to best fit their course to serve as a monitoring system. Interventions took place to assist with retaining the students identified.

Another student service utilized by BSCTC to identify students at risk is the “No Show or Lack of Participation” reporting system. Faculty periodically reported students who have stopped attending class or logging into their online course. To involve students more in an online course faculty are requiring a set amount of
participation levels by creating discussion forums and assignments in Blackboard.

Faculty gauge participation levels by the number of posts a student submits within the discussion board and assignments as well as keeping track of the last date of participation with the performance dashboard of the course which indicates the last login date.

One of the challenges that community colleges face is the diverse population. Raising admission standards has been a concern of many as a means to increase retention rates. Could admission standards improve online retention? Due to open enrollment strategies, raising standards is not possible for state funded institutions and should not be considered by public schools if enrollment headcount guides funding and survivorship (Seidman, 2012).

Due to the diverse population of community college students there is an increased need for additional student services. The increased need for these services has redefined the work week at community colleges. Students are requiring 24/7 assistance which included remote services such as online communication and call centers. Student service staff members are playing an important role in helping students reach success (Helfgot & Culp, 1995).

Student perseverance is essential to the success of a community college since they are the leaders in online student enrollment (Harrell, 2011). Harrell concluded that auditory learning style score, GPA, and basic computer skills to be the significant predictors in community college student persistence. These factors can be used to
equate the probability of BSCTC’s online student’s success in online course completion.

Recommendations for retention strategies will be drafted for submission to BSCTC Provost Team based on the finding of this study. Retention data will be extracted to formalize recommendations and will be tracked to provide more in-depth study of retention in online courses at BSCTC.
Chapter 3

Methodology

Introduction and Overview

This chapter reflected on the methodology used to perform research on online learning retention rates at BSCTC. The purpose of this study was to analyze any patterns found in online course performance. The goal was to determine factors that impact online student success rates. It includes research methods and procedures, methods of analysis and synthesis, and limitations of the study.

Research Methods and Procedures

Student retention plays an important role in the success of a community college. This comparative research focused primarily on the retention of online students. Data collection compared success rates among the online courses provided by BSCTC and gauged the similarities among face-to-face (F2F) courses taught by the same organization.

BSCTC is one of the 16 colleges in the Kentucky Community College System (KCTCS) offering postsecondary courses in various platforms. The platform of focus in this study is online course delivery. Online courses taught by BSCTC are open to any student. Therefore, the student population is diverse in nature. Specific demographic information was analyzed to identify the data used in this study. This comparison determined whether BSCTC online courses (using CIS 100 as a base model) are producing the same success rates as their F2F courses and helped explain,
what factors influence the successful completion rates in online courses taught by BSCTC?

According to Phipps and Merisotis (1999), many colleges are turning to distance learning courses to increase their enrollment. They further imply that colleges are failing their students because they are not addressing the success rates of online courses as compared to F2F success rates. The overall retention efforts of the college are directly impacted by the enrollment and completion data of all courses provided (Phipps, 1999).

Qualitative research consisted of data collected from PeopleSoft, a software application owned by Cedar Crestone Managed Services. BSCTC uses Oracle’s PeopleSoft to manage their Human Resources Management System, Financials, and Student Administration. Research conducted for this study was generated from predefined queries from the student administration application. Queries generated from the reporting system established criteria for enrollment data such as number of students enrolled in courses provided by BSCTC. Queries extract the precise information as allocated by the data collector. Demographic data and success data were filtered to not include any identifying agents.

Methods of Analysis and Synthesis

Detailed queries provided enrollment data comparing F2F enrollment numbers to online course enrollment numbers. Other comparisons among those formats included completion reports identifying the retention percentages, grade reports outlining the number of A, B C, D etc., College Readiness and ACT scores of service
area students, term data to determine if students enroll in online courses more in the Fall, Spring or Summer, and demographics comparing online students to on-campus students. CIS 100 – Introduction to Computers was used as a base model to reflect any common patterns. CIS 100 is open to any student regardless of their academic level and program of study. It has no prerequisites and fulfills the general education requirements for computer literacy. This course attracts students of various age groups from various majors and is taught in both formats. Computer keyboarding knowledge is recommended but not mandatory.

Online student success included passing grades of A, B, C, and D. Students who received an E, F, or W (withdrawal) were not included in the success figures but were used in comparison of retention. The central question of this case study was “Are online students more successful than F2F students?”

Before an analysis could be performed it was necessary to identify the number of students who were not successful. Online student achievement was analyzed over a three-year period. The primary goal of this study was to identify success patterns in online courses and more importantly determine any contributing factors such as college readiness, ACT scores, course duration, term offerings, student gender and age. After collecting the data and analyzing the results, the development of a white paper recommending systematic change based on needs analysis was created to present to BSCTC’s administration. Recommendations for further data collection were recognized to include the identification of transitional students who are taking online courses along with other demographic data involving the need for student
surveys. More in-depth data collection will enhance improvement strategies that addressed student retention at BSCTC.

Sample
This study included the online student population enrolled with Big Sandy Community and Technical College (BSCTC) throughout the past three academic years, 2009-2010, 2010-2011, and 2011-2012. BSCTC provides postsecondary courses to students primarily in our service area which consists of five counties (Floyd, Johnson, Pike, Martin, and Magoffin). Traditionally the enrollment is populated by these regions; however, online enrollment has opened the door for enrollment from other locations outside of the service area.

Procedures
Data were collected with cooperation of KCTCS and BSCTC’s Institutional Effectiveness and Research Department. Student data were collected by running queries available in PeopleSoft and filtered reports provided by DSS (Decision Support System).

Detailed criteria consisted of enrollment data comparing F2F enrollment numbers to online course enrollment numbers. Completion reports, final grade reports, College Readiness and ACT scores of students enrolled were compared to identify which teaching mode is exhibiting higher success rates. Course duration patterns and term data were assembled to determine if students enroll in online courses more in the Fall, Spring, or Summer. Final analysis displayed demographics from a three-year period.
Analysis compared final grade reports for all courses provided by BSCTC, which is housed in the student records system, PeopleSoft. Final grade reports were compared to identify students who were unsuccessful or who withdrew from online and F2F courses. Data were collected with intent to identify areas that contributed to online success patterns. Data provided for this research was extracted by the Director of Institutional Effectiveness at BSCTC and was provided to the researcher in a format that eliminated all identifying agents. Federal regulations were followed to protect human subjects and the data contained existing data, documents, and records involving normal educational settings.

Retention in online courses is the key focus on this case study. It was crucial to compare retention rates among online courses and compare that data with non-online courses offered at the same college. Identifying factors that contribute to low retention rates are essential to a community college’s success. Nealy (2008) found that it is typical for a college to lose about 50% of their student enrollment prior to the student’s second year. Prior studies identified reasons these students are at risk as being students of color, low-income students and academically underprepared students. Will the online retention data prove to be the same?

Retention not only is defined as the percentage of students that fail to come back to college after their first year. It also reflects the number of students who fail or withdraw from an individual course or courses. This study analyzed retention from the individual course perspective. Is online retention equivalent to F2F courses? Who is enrolling in these courses? Are students ready to take online college courses? Each
of these questions was addressed to determine if there are any contributing factors that would determine a student’s success.

Freshmen are applying for enrollment and are lacking basic skills necessary for college success. Further analysis compared College-Readiness data and ACT scores among students residing in the five county service area of BSCTC.

Retention rates are perceived as indicators of academic quality and student success. Furthermore, institutions with higher admission standards tend to have higher retention rates. For this reason alone one needs to study college readiness data to identify any patterns of unsuccessful students (Arnold, 1999).

Fall, Spring, and Summer college courses generally occur over a 16 week period. However, there are times during the year when courses are provided at a quicker pace such as an 8-week Summer course. Grade comparison was made over a three-year period to determine if the faster pace courses were returning a lower retention rate as well as comparing the terms (Fall, Spring, and Summer) to determine if the time of the year had any effect on retention rates.

The employment status of faculty may contribute to an online courses success. Community colleges have turned to adjunct faculty due to the growing enrollment in online classes. For many colleges and universities part-time faculty provides virtually half of all instruction (Daniel, 2006). Future data collection will exam whether BSCTC’s retention rate declined or increased with part-time faculty employment. Is there any connection? Who had a higher retention rate?
The last analysis broke down the demographics of the online students enrolled over the past three years. Specific data collected determined the gender and age of the BSCTC online student population. Does age and gender of online students have an impact on the success of a course?

Retention rates typically measure the percentage of freshman that return to their second year of college. Rates change, as do the demographics of the students. High risk students have specific characteristics such as being from a low-income family, having lower achievement scores, having lower degree aspirations, increased likelihood of being an older student, and having children (NCES, 1998). Two of these characteristics (having lower achievement scores and increased likelihood of being an older student) was used to identify any similarities in retention rates in online and F2F courses.

A traditional student is between the ages of 19 and 24. They normally attend school full-time, are dependent, and work a few hours per week. Whereas a non-traditional student is 25 years and older, works full-time, attends school part-time, independent, commutes to school, and has children (NCES, 1997).

During the Fall 2012 semester, data were extracted from the system database to compare student success rates in all CIS 100 courses. At the end of the Fall 2012 semester, collected data were analyzed and comments were consolidated to assist with constructing retention patterns identified in the study. During the Spring 2013 semester, further data were collected for comparison. Any changes in performance improvement were noted and additional modifications were conducted.
Chapter 4

Findings

Enrollment data, grade distribution reports, and student demographic data were collected for a three-year period. With cooperation of the Institutional Research Department data were extracted from PeopleSoft and course data comparisons were made to analyze the number of failures and withdrawals, the demographics of the students who were not successful and the level of courses that were returning higher percentages of non-completers.

This chapter provides figures comparing the growth of online courses, success rates, percentage of failures compared to withdrawals, demographics, course level comparisons, term statistics, and five-county service area stats. Each of these comparisons identify the success rates from both platforms (F2F vs. online) and CIS 100 compared to all courses provided by BSCTC.

This chapter outlines the findings of success and identifies strategies to entice faculty at BSCTC to concentrate on improving the overall student success performances not only in the online platform but in any course delivery mode. By doing so, BSCTC will provide more credentials and will better prepare their students for the workforce or transfer.

Findings of Success and Identified Strategies

First, queries were extracted to compare the number of course offerings delivered by BSCTC. After gathering data for the three-year period, success rates
were compared among the F2F and online platforms and a more in-depth analysis was extracted to provide success rates among CIS 100 courses delivered by BSCTC.

**Growth of Online Course Offerings**

To meet the demand for online course delivery BSCTC has provided a diverse selection of courses. During the course of Fall 2009 – Summer 2012 they provided 1,279 online courses (see Figure 3). This capstone study has analyzed student’s performance throughout that timeframe.

![Figure 3. Number of online courses provided by BSCTC during academic years 2009-10, 2010-11, 2011-12 (Fall, Spring, and Summer).](image)

As noted in Figure 3, the number of online course offerings continue to rise providing our students with more opportunities to enroll and complete their higher educational goals. BSCTC is reaching out to those who have faced barriers that kept them from enrolling due to family obligations or other reasons. The goal is not to only provide access but to promote success.
Success Rate Comparison

After comparing success rates over a three-year period (see Figure 4) for courses provided by BSCTC it was found that F2F courses were delivering higher completion rates. Across the board regardless of the time of year, the brick and mortar classroom courses demonstrated to be more successful. The inconsistent success rates among the online platform prompted this research. Data collection and analysis will be discussed throughout Chapter 4. Figure 4 outlines the success rate patterns throughout the three academic year timeframe utilized for this study.

![Success Rate Comparison Chart](image)

*Figure 4. BSCTC's success rates comparing F2F with online course success rates, Fall 2009 - Summer 2012.*
After obtaining the three-year period success rates from F2F and online courses, there was concern considering F2F success rates were consistently returning higher success rates over online courses. These findings prompted further analysis to determine if students were performing better during a certain time of the year. Numbers were extracted to combine Fall, Spring, and Summer terms to provide a more detailed analysis of term statistics. Do students perform better during the Fall, Spring, or Summer or is there any significant difference?

**Term Statistics**

Further analysis recognized that Summer terms proved to be more successful than Fall and Spring terms (see Figure 5). What is the difference? The timeframe is quicker paced nevertheless the content is the same. Therefore, online courses during the Summer terms could have higher success rates due to the diverse population of students enrolled during that term. Six credit hours is considered full-time during the Summer term so students take fewer hours which allows them to devote more time to one or more subject areas. Figure 5 clearly presents Summer courses to be more successful by returning the lowest failure and withdrawal rates.
BSCTC provides courses to visiting students during the Summer term as well as returning and new students. As suggested the Summer population is more diverse than the other semesters due to the transient students who come home during the Summer months or enroll at a community college because of the lower tuition rates. Other reasons may be that they are repeating a course to transfer back to their Home College. Transient students may prove to be more successful because they have taken postsecondary courses prior to the Summer term which may better prepare them for a quicker paced online course.

**Success Rate Averages**

When averaging the success rates throughout the three-year period (see Figure 6) there was not a significant difference in success rates but then again F2F courses still remain to be predominant averaging 3.7% higher in success.
Figure 6. BSCTC’s three-year average of success rates in both F2F and online courses.

The three-year average may not warrant concern when comparing the two platforms. However, strategic goals implicate the need to increase retention. Faculty involvement would include faculty performance improvement initiatives and roster reporting tactics to identify students who are not attending or participating. First roster reporting has been implemented to withdraw students who have failed to attend class or log into an online class during the first week of coursework. These strategies are being utilized to decrease the Return to Title IV funds as well as increase the retention rates for students who actually participated in the course. This reporting system reduced the number of students who received failing grades.

Failure or Withdrawal Comparison

When analyzing whether students withdraw or fail their online courses it was found that the failure grades outweigh the withdrawals. Many students remain in the
courses hoping to pass but fail to obtain the minimum number of points required to pass the course. Others simply neglect to withdraw and stop attending class or participating online. Figure 7 averages both failures and withdrawals over the three-year period.

![Bar chart showing Percentage of Failures and Withdrawals](image)

**Figure 7.** Percentage of Failures and Withdrawals, Fall 2009-Summer 2012.

Without a detailed survey, one cannot identify why they are failing or withdrawing. Faculty was instructed to develop early warning alerts within their online course modules to alert students when they fall below a satisfactory level. These strategies advised students to withdraw if they are in jeopardy of failing the course.

**Demographics**

The remaining analysis attempted to break down the characteristics of who is failing (gender, race, age, county of residence, etc.), when they are failing the most
(Fall, Spring, or Summer), where they are failing (F2F vs. online) and what they are failing (course level).

**Who is failing?** A more extensive look at who is failing increased the efforts of identifying reasons for failure. Are failure rates determined by gender? When comparing the failure and withdrawal percentages, it was found that females hold a higher rate than males, (see Figure 8). Females are attracted to online courses because of their busy lifestyles.

![Pie chart showing gender distribution of course failures: 67% Male, 33% Female.](image)

*Figure 8. Percentage of Failures and Withdrawals by Gender, Fall 2009-Summer 2012.*

Percentages identified when analyzing BSCTC’s students who fail or withdrew agreed with the findings of researchers identified in Chapter 2 by Jost (2004). These findings necessitated the need for faculty to assess the population of their online course and perform a demographic analysis to identify students who may be at risk. Early detection is the key to promote success initiatives in an online course.
What other characteristic data can be found to understand who is failing or withdrawing? Eastern Kentucky is predominantly white. Figure 9 reports 90% of the failure and withdrawal rates of BSCTC students as being white.

![Pie chart showing race distribution]

Figure 9. Percentage of Failures and Withdrawals by Race, Fall 2009-Summer 2012.

Again the percentages agreed with prior studies conducted by Jost (2004) which implied that online students were predominantly white females. The findings suggest that the ratio of women taking online courses are higher therefore it is no surprise that they would return a higher failure or withdrawal rate. Strategies to improve the number of white females to complete online courses includes online resources that aid with time management skills and online tutoring links.

As noted in previous chapters, online courses are populated with both traditional and non-traditional students. When analyzing the enrollment Fall 2009-Summer 2012 it was found that traditional students proved to be less successful in the online course environment. Figure 10 displays the percentages of failure and
withdrawal rates as compared by age. CIS 100 online courses returned the same results however the rate increased in the traditional student age group.

![Graph showing percentage of online course failures and withdrawals by age.](image)

**Figure 10.** Percentage of Online Course Failures and Withdrawals by Age, Fall 2009-Summer 2012.

Community college students are populated with various age groups. The majority of students who fail or withdraw from courses delivered by BSCTC fall within the age group of 24 and under, the traditional group. What does this tell us? Lower success rates can be contributed to deficiencies in college readiness courses or being overwhelmed with college coursework. Implementation of success strategies is the key to assisting these students. Time-management modules assisted these students with planning their studies.

Non-traditional students are older students who in most cases are adults who return to school after losing jobs or who come back to college with ambitions to
obtain a college degree. These age groups are normally more dedicated and enroll in fewer credit hours than the traditional students who normally enroll full-time.

**What are they failing?** BSCTC delivered a total of 1,279 online courses during Fall 2009-Summer 2012. Among these offerings one found three levels which are developmental or transitional (1-99), freshmen (100-199), or sophomore (200-299) level courses.

Transitional or developmental courses are provided to students who are deficient in mathematics, writing, or reading. One hundred and two hundred level courses consist of both general education and technical courses. Each course delivered has a course description and some require prerequisites. Figure 11 outlines the percentage of failures and withdrawals that occurred at each level for the three-year period.

![Percentage of Failures/Withdrawals by Course Level](image)

<table>
<thead>
<tr>
<th>Course Level</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 100 Level</td>
<td>9.2%</td>
</tr>
<tr>
<td>100 Level</td>
<td>65.7%</td>
</tr>
<tr>
<td>200 Level</td>
<td>25.1%</td>
</tr>
<tr>
<td>CIS 100</td>
<td>9.9%</td>
</tr>
</tbody>
</table>

*Figure 11.* Percentage of Failures and Withdrawals by Course Level, Fall 2009-Summer 2012.
When comparing success patterns throughout a three-year period (Fall, Spring and Summer terms), CIS 100 F2F courses were presenting a higher success rate than CIS 100 online courses as shown in Figure 12. Classrooms are composed of different learning styles which conclude that not every person is technically savvy. The technology requirements for an introductory to computers course could contribute to its higher failure rates. To substantiate this assumption one would need to survey each individual to identify and analyze their level of computer basic knowledge.

Setting aside the need to analyze individual learning styles, one can look at the similarities of the students within the course. Further data collection was conducted to assist with identifying factors that may lead to online failures or withdrawals within the CIS 100 course. What demographic data does these failure or withdrawal students have in common?

When analyzing Figure 12 more in-depth, there is no significant difference when comparing CIS 100 online enrollment success rates during the Fall (52%) and Spring (54%) terms. Summer courses return a higher overall retention rate (70%). Conversely, all CIS 100 courses provided throughout three Summer terms were taught strictly online.
Figure 12. BSCTC three-year success rate comparison of CIS 100 F2F and online courses.

Summer courses are taught primarily online because full-time faculty are on 10-month contracts and only teach online during that term as overload status. Other sections are provided by part-time faculty members who are only contracted term by term.

CIS 100 courses taught during Summer terms are completely online with no on-campus offerings. This data does not suggest that online students are more successful during the Fall or Spring term as demonstrated in Figure 12. Summer courses are faster paced therefore the time of year has no factor on their online success specifically in CIS 100.

CIS 100 courses during the Fall terms were returning a higher success rate than Spring courses. Once more the F2F platform presented a higher success rate than
online courses. These results raise more concern since course content is the same (comparing apples to apples). Therefore, different success rates would suggest that faculty teach the course differently or the method of course delivery determine the success of the students involved. Strategies on how to bring the classroom atmosphere into an online course was a recommendation for improving online success rates for BSCTC.

Semester comparisons suggest CIS 100 F2F courses deliver a higher success rate (67%) than Spring courses (60%) as shown in Figure 12. One cannot compare CIS 100 Fall and Spring success rates with those from Summer courses due to the lack of on-campus offerings during the Summer terms. Faculty primarily teach online during the Summer term which does not allow accurate comparisons of which term is more successful when weighing in Summer term success patterns for this course.

As noted previously the student population is unique in nature during the Summer terms due to visiting students from other institutions who may have higher ACT and academic skill levels. Figure 13 suggests that CIS 100 courses are not as successful as other courses provided by BSCTC.
Figure 13. BSCTC success rate compared to CIS 100 success rates in both formats, F2F vs. Online, Fall 2009 - Summer 2012.

When comparing the percentage of failures and withdrawals throughout Fall 2009 – Summer 2012 the averages mirror themselves. However, CIS 100 is not consistent and is not returning a desirable success rates. One is to believe that the technology and software requirements contribute to the lack of success among students. A more detailed look at demographic and characteristics may aid with identifying the origin of the failures and withdrawals.

Where are they failing? Research analysis conducted by KHEAA Policy Analyst Melvin E. Letteer, conveyed that from FY 2000-FY2012, adults age 25 and over undergraduate enrollment has risen by a net average of 3,757 students a year (Letteer, 2013). Table 2 is profiles of students in BSCTC’s five county service area
(Floyd, Johnson, Magoffin, Martin, and Pike) comparing population, education, and college readiness numbers.

Table 2

*BSCTC Service Area Population Comparison*

<table>
<thead>
<tr>
<th>General County Population</th>
<th>Floyd</th>
<th>Johnson</th>
<th>Magoffin</th>
<th>Martin</th>
<th>Pike</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Population</td>
<td>42,441</td>
<td>23,445</td>
<td>13,332</td>
<td>12,578</td>
<td>68,736</td>
</tr>
<tr>
<td>Living in Poverty</td>
<td>30.3%</td>
<td>26.6%</td>
<td>36.6%</td>
<td>37.0%</td>
<td>23.4%</td>
</tr>
<tr>
<td>Use Internet at Home</td>
<td>53.7%</td>
<td>66.2%</td>
<td>51.9%</td>
<td>49.3%</td>
<td>60.4%</td>
</tr>
</tbody>
</table>


Furthermore, the Kentucky Postsecondary Education Data Portal determined our five county average poverty level is equivalent to 30.8% while an average of 56.3% of the five county population uses the Internet at home. How does poverty levels compare to failure rates? Figure 14 compares the percentage of the population in the five-county service area to the percentage rate of failures that reside in those counties.
Figure 14. BSCTC five-county service area comparison of percentage of failures and withdrawals, population living in poverty, and population that uses internet at home.

Figure 14 does not reveal that poverty controls student success. Counties with higher poverty levels did not produce the most failures or withdrawals and the internet is used in the homes throughout the service area somewhat equally. Two of the service area counties (Magoffin and Martin) almost present the same percentages when comparing all three areas. The data collected does not support poverty and technology usage at home as being contributors to determine the success of an online student.

Next, the research addressed the educational levels of the students enrolling at BSCTC. Adult Education is a key to success at any community college. Students who
fail to graduate from high school are provided an opportunity to receive their GED before beginning their postsecondary journey. The five county service area population of educational levels are outlines in Table 3.

Table 3

**BSCTC Service Area Highest Level of Education Comparison**

<table>
<thead>
<tr>
<th>Highest Level of Education</th>
<th>Floyd</th>
<th>Johnson</th>
<th>Magoffin</th>
<th>Martin</th>
<th>Pike</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less Than a High School Diploma or Equivalent</td>
<td>38.7%</td>
<td>36.2%</td>
<td>49.9%</td>
<td>46.0%</td>
<td>38.2%</td>
</tr>
<tr>
<td>High School Diploma or Equivalent</td>
<td>29.9%</td>
<td>35.1%</td>
<td>28.2%</td>
<td>29.7%</td>
<td>34.3%</td>
</tr>
<tr>
<td>Some College but No Degree</td>
<td>17.2%</td>
<td>14.6%</td>
<td>13.5%</td>
<td>13.2%</td>
<td>14.1%</td>
</tr>
<tr>
<td>Associate Degree</td>
<td>4.5%</td>
<td>4.8%</td>
<td>2.0%</td>
<td>2.1%</td>
<td>3.4%</td>
</tr>
<tr>
<td>Bachelor Degree or Higher</td>
<td>9.7%</td>
<td>9.3%</td>
<td>6.3%</td>
<td>9.0%</td>
<td>9.9%</td>
</tr>
</tbody>
</table>

Table 3 projects an alarming factor in student success. The higher percentages fall in the category of “Less Than a High School Diploma or Equivalent”. Our service area is populated heavily with students who are not prepared to enroll in postsecondary courses. They are testing into remedial courses in areas of writing, reading and mathematics. This calls for partnerships to be formed among secondary and postsecondary providers throughout the state.

**Why are they failing?** In order to increase the number of credentials awarded BSCTC is partnering with area high schools to prepare their students for college. College readiness comparisons among the five county service areas are demonstrated in Table 4.

Recognizing the need for transitional courses BSCTC began providing these courses online to area high school students and students throughout the state. Caution must be used when placing deficient students in an online environment. Colleges must provide mentors to assist these students. Implementation and strategies was discussed further in the Chapter 5.

After analyzing the data discussed throughout Chapter 4 it was found that further data collection is necessary to identify how many students complete their transitional coursework before enrolling in online courses. Furthermore it is necessary to identify how many students have completed a computer literacy course before enrolling in an online course.
Table 4

*BSCTC Service Area College Readiness Comparison*

<table>
<thead>
<tr>
<th>College Readiness</th>
<th>Floyd</th>
<th>Johnson</th>
<th>Magoffin</th>
<th>Martin</th>
<th>Pike</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average ACT Score</td>
<td>19.3</td>
<td>20.8</td>
<td>18.7</td>
<td>19.3</td>
<td>20.5</td>
</tr>
<tr>
<td>% Entering College with Developmental Needs in One or More Subjects</td>
<td>74.4%</td>
<td>55.6%</td>
<td>70.6%</td>
<td>50.0%</td>
<td>52.3%</td>
</tr>
<tr>
<td>% Entering College with Developmental Needs in Mathematics</td>
<td>67.3%</td>
<td>46.7%</td>
<td>66.7%</td>
<td>38.9%</td>
<td>44.1%</td>
</tr>
<tr>
<td>% Entering College with Developmental Needs in English</td>
<td>50.0%</td>
<td>37.8%</td>
<td>47.1%</td>
<td>25.0%</td>
<td>35.7%</td>
</tr>
</tbody>
</table>


Chapter 5 will conclude the findings of this research and will contribute to actions and implementations of success strategies to be provided to BSCTC faculty and staff to address online student success.
Chapter 5

Conclusions

As reported, online enrollment continues to grow. Community Colleges as well as four-year institutions rely upon online enrollment to increase their overall headcount. What many are failing to recognize is the increasing numbers of students who are withdrawing or failing online courses. Whether the reason is workloads, instructional approach, or technology, colleges need to realize that students are more than just numbers (Jenkins, 2011).

Colleges tend to rely upon online course enrollment to increase their overall enrollment numbers which generates funds. The goal of this research was to determine whether or not online education is providing the same success outcomes as the traditional F2F courses. The study identified contributing factors or criteria that influence the success rate. A white paper outlining the need for further data collection to address retention strategies was constructed to present to the Academic Officers at BSCTC to assist in increasing student success rates in online courses provided by the institution. The next step would include making necessary changes to better prepare students for online courses and to ensure that the courses are providing learning experiences that enhance retention. Futuristic planning would constitute student orientation and faculty development strategies. A needs analysis approach identified the need to collect data detecting why students fail. Is there any connection with College Readiness data, GPA, academic load, or other contributing factors that can be
linked to unsuccessful performances? These are items that need to be considered before next steps can be determined so as to address the critical issues.

Teaching online requires careful planning. BSCTC requires all faculty to submit an instructional improvement report which is incorporated from course feedback of instruction, personal instructional experiences, learning outcomes, peer collaboration, classroom observation, and course competencies. It is the responsibility of each individual faculty member to perform the self-evaluation and to identify methods to address any deficiencies or concerns with their course improvement.

Specific feedback used for improvement planning included providing more feedback on student performances, using engagement activities, assignments or projects to help students meet course competencies. The needs analysis will focus on submitting online student surveys to address areas of concern identified in Chapter 4.

Projected improvement actions included providing more feedback on graded material with written comments and examples, providing an online social environment to assist students with projects and to encourage collaboration, incorporating video productions to demonstrate lab exercises, and implementing early warning systems to identify students who fail to log into the Blackboard course management system more than seven days or who fall below a satisfactory (below 70%) level throughout the course.

These futuristic implications were incorporated into a white paper to be submitted to the administration at Big Sandy Community and Technical College (BSCTC) with recommendations to collect more detailed data based on needs
analysis conclusions. To increase the overall retention rates in online course offerings there was an identified need to study the reasons why students withdraw or fail. A white paper addressing the need for systematic change for online course success was created to incorporate retention strategies, course development guides, quality assurance check sheets, and faculty roster reporting strategies. Each of these will assist with retaining students to improve retention rates as well as increase the number of credentials awarded to make BSCTC stronger by degrees. However, identifying factors of why students are not successful remained the primary focus of the white paper. Further data collection will consist of analyzing data to determine why the identified students were failing or withdrawing. A needs analysis determined a need for more data collection. Recommendations reflecting the type of data required to enhance retention will be outlined in the white paper.

Online success is it a battle of the sexes, demographical or unknown? Why do students prefer online courses? Research may bring forth many reasons, but one motive stands out from the others. Students like the convenience of online learning merely because online courses are designed to administer course content without time and location specifications implying that students have access 24/7. Marketing may play an important part in the success of an online course. However, enrollment does not ensure success. Using cliché from the film “Field of Dreams” (Robinson, 1989), this study was conducted to first identify who is attracted to online courses and secondly what it takes to reach success.
The voice from the film presented an overall theme for the story. “If you build it he will come,” (Field of Dreams, 1989). Ray Kinsella followed his dream regardless of personal attacks from his family members and community. The same is true for an online course. Online courses received a lot of ridicule from peers in the postsecondary setting. The effectiveness of delivering course content in an online setting was unforeseen by faculty who did not understand the new venue of course delivery. As the instructor you can ask yourself, “If I build the course will they come?” However, the most important question which was the concentration of this study inquires, “When they come will they stay?” Instructors must create a course by incorporating the course objectives and requirements in a navigational manner that would guide the student through the course. If the instructor does not map the course in stages that guides the learner through the course it may develop frustrations which may lead to withdrawal or failure. The course designer must, “ease their pain”.

Building the ball field takes careful planning. “How are we going to ensure success?” Unfortunately, not everyone knows the rules of the game or how to play the game. During the first week of class the instructor should open the door for introductions and identify the student’s level of understanding. Furthermore, it is advisable to provide learning style inventory assessments to the learners so they can identify how they learn best and to assist the instructor on providing various formats of content.
Online learners have been merging from the cornfields to play ball for over a decade now. Are online courses more successful than F2F courses? That is the main focus that has directed this study.

“Go the distance.” Faculty need to go the distance to reach their students both in the classroom as well as the online environment. Online students are comprised of various age groups who are diverse in their own way. We must understand that not all college students are the traditional 18-24 year old students who have no other responsibilities outside of the classroom. Many have families and jobs that occupy a large portion of their awake hours. Go the distance to provide opportunities for these students to reach success in their studies as well as providing time management tactics to ease their pain.

Was age an identified factor? Carr reported that older distance learning students drop out more frequently (Carr, 2000). Is this still a factor over a decade later? This study did not agree with Carr’s findings. In both comparisons of all online course offerings and CIS 100 online course offerings the traditional students (age 24 and under) performed at a lower success rate than non-traditional students. This study’s findings agreed with the prior research performed by Jost and Lorenzetti when comparing age groups.

In 2001, Lynch reported that student withdrawal rates from online courses were as high as 35-50% compared to 14% of traditional F2F courses (Lynch, 2001). BSCTC online courses delivered between Fall 2009-Summer 2012 averaged a
withdrawal rate of 36.5%. This percentage fell within the data range reported. However, BSCTC administration will determine if these numbers are satisfactory.

Strategies to reduce withdrawal rates will be implementing early warning alerts within the grading system of Blackboard. Faculty will be encouraged to develop rules within their grade book that would alert them when students are falling below a satisfactory level or when they fail to login after an allotted timeframe.

Plans must be in place to ensure online success. Ali and Leeds articulated that retention rates in online courses are 20% lower than F2F courses. They further acknowledge that retention rates increased when students attended an F2F orientation (Ali & Leeds, 2009). Is this the key to success in an online environment? Online orientation recommendations will be constructed into the white paper for BSCTC administration expressing the need for online orientation delivery.

Furthermore, they found that F2F orientations contributed to the building of learning communities which provided students with a sense of security. These same strategies can be developed for online learning communities. Frequent interaction among faculty and students is highly recommended for online course retention. Some students prefer working independently while some prefer working in groups. Communicating to each preferred style of learning is essential. One recommendation and strategy to consider is encouraging BSCTC faculty to provide online orientations as well as learning style inventory assessments. The implementation of these techniques will encourage them to stay, to learn, and to play the game. Like baseball, not everyone can hit a homerun. Most importantly, no man can win the game by
himself. It takes team work. The faculty member can be considered the coach of the team. Additionally, the team is only as good as the coach.

This brings the discussion to a conclusion of being ready to audition or tryout for the team. So many students enroll in college not being proficient in remedial studies (math, writing, and reading). Partnerships are being formed with BSCTC’s high schools within the five county service area. Admission Advisors are going to the schools preparing students for what they need before graduating from high school. College Readiness is crucial to the success of a student and to the overall retention rates of a college. Skills obtained will determine whether the students is a five star player or a bench warmer. Should remedial students be allowed to take online courses? This is a question that cannot be asked until more data is collected by the institution that can be analyzed to answer questions regarding preparedness of remedial students for online courses. Recommendations to collect more data relating to online students and College Readiness data will be outline in the white paper presented to the BSCTC Administration.

BSCTC is taking part in the College Readiness program available through the Learn on Demand (LOD) program available through KCTCS. College Success Coaches are stationed throughout the state to keep these students on track to complete their transitional courses to prepare them for college courses. LOD courses are provided in modules and students work at their own pace which takes away the anxieties and time constraints that they face in traditional online courses.
Beginning Fall 2013, no degree seeking student was permitted to enroll at BSCTC without a high school or GED diploma. The implementation of this policy may increase the success rates in lower level courses in the future. Recommendations to not allow students to enroll in online courses without testing or completing their remedial studies will be incorporated into the white paper. Future data collections will determine how many online students test into remedial work and how many are unsuccessful in online courses before completing their remedial studies.

Other demographic and characteristic data suggested that females, whites, and poverty stricken counties did not perform as well in online courses as the other populations. BSCTC can provide student services that provide tutoring and online services that would cater to these individuals. Academic advisors can better prepare their advisees for online success by raising awareness of skills needed to perform successfully. This study is not suggesting that these individuals should not take online courses. It merely was performed to assist online faculty with raising awareness as to what is required to be successful online and to provide course improvement strategies to make their online courses as successful as the brick and mortar courses.

Students enroll at BSCTC for various reasons. Regardless of the cause, it is crucial to provide assistance with academic career planning. Every degree seeking student at BSCTC is provided with an academic advisor. Pre-college assessments are performed to place the student within the appropriate level of general education courses. These same individuals need to communicate online expectations if the advisee elects to pursue the online course format. Early detection and awareness of
skills needed for online success should be discussed with those individuals. Online course orientation assessments once again are needed to promote online retention. Recommendations will include directing students to access the online orientation before determining whether online education suits their study and lifestyle patterns.

**Findings for Research Question #1**

Research Question 1 analyses whether or not online courses are returning the same success rate as F2F courses delivered by BSCTC. For nine consecutive semesters analyzed in this study, F2F courses were delivering a higher success rate by 3.7%. Giving consideration to the time of year that a student may enroll in an online course, analysis was performed to average the Fall, Spring and Summer terms for the three-year period. Summer terms presented a much lower total of failure and withdrawal rate than Fall and Spring terms. However, when comparing the average percentage of failures against the average percentage of withdrawals, the failure rate was significantly higher with 63.5% of the total number. Recommendations in the white paper will address the need to identify why students fail or withdraw. Data determined the percentages of failures and withdrawals but did not analyze the contributing factors that lead to the student’s lack of success or why they dropped the course.

BSCTC’s service area consists of five counties with a poverty average of 30.8% of the population of those counties combined. It was also found that over half of the population have Internet at home. Therefore, access to online courses would
not be a problem unless faculty use video streams that would require a higher bandwidth for previewing.

**Strategies**

Demographic data will be used to develop strategies on improving online learning. When comparing gender, 67% of the total number of students who failed or withdrew from online courses were female and 90% of that same population was white. When comparing age, the students were divided into two groups (24 and under or 25 and older). The traditional age group, 24 and under, returned a higher failure and withdrawal rate. These findings were contributed to various reasons. The various course levels were analyzed to identify what level of courses students were withdrawing or failing and found that 100 level courses returned a much higher rate of 65.7% of the total number of failures and withdrawals.

To reach the female population, BSCTC can develop online resources to assist with time management skills, technology skill building exercises, and online mentors. To address the traditional age student withdrawal and failure rates and the 100 level course failure and withdrawal percentages, first-year experience faculty advisors can recommend students complete the online student orientation to determine if they are idea for the online course environment. These same strategies can be used to concentrate on enhancing retention in CIS 100 courses in both platforms studied.

Recruiting strategies will be implemented to market BSCTC within the five-county area to recruit the poverty stricken households enticing them to enroll and
complete an Associate Degree or Technical Program. This would communicate the “Stronger by Degrees” initiative that will be implemented in the near future.

College Readiness scores reported for the five-county service area were suggesting that large numbers of students are placing in developmental courses. Partnerships with service area high schools will continue to invite students to complete all transitional work before graduating from high school.

**Product**

To address the shortfalls of online courses, there is an identified need to entice first-year students or first time online students to perform the online education orientation. Secondly, they need to be directed to various student services provided by BSCTC. Online course orientation needs to be one of the focal points for the new student orientations and discussed with the local high students during on campus visits and through the Admission Advisor visits at their high school.

Various roster-reporting procedures will continue to make an impact on failure and withdrawal rates at BSCTC. The Registrar’s Office at BSCTC will require faculty to report non-performing online students and absent students in the F2F courses within the first week of the course. Students will be withdrawn at 100% and will not calculate as a failure or withdrawal or have a negative impact on retention numbers. Return to Title IV roster reports will be conducted when 60% of the course has been completed. This alerts students that they are at risk to fail their course and encourages them to withdraw or communicate with their instructors to discuss success strategies.
Create and communicate marketing strategies to recruit students and to explain the various learning environments in which BSCTC can provide. Making that initial connection will provide first-year experience success strategies to provide access and success. Students will be presented with orientation packets that will include online course awareness, which will include success strategies.

Marketing of LOD transitional courses will be in place to invite high school students to enroll and complete any deficiencies before graduating from high school. Other alternatives will be enrolling in dual credit courses provided by BSCTC. Online course orientation material will be provided to all interested parties before initial enrollment into the online platform.

**Findings for Research Question #2**

Colleges are requiring online students to take a one-credit hour online orientation before allowing them to enroll in their first online course. These same strategies are recommended for BSCTC. Students must be provided with skill building exercises to enhance their technical skills as well as time management and critical thinking skills. It is also recommended for online students to complete any developmental work before enrolling in a 100 level or 200 level courses in the online environment. Developmental studies should be completed with their first-year of studies.

**Strategies**

Encourage faculty to guide students to the online orientation tutorial to complete before gaining access to their first online course. Other recommendations
would require students to take an online learning skill assessment and a learning style assessment inventory before gaining access to their online course.

Online students must recognize any weakness and need to identify which type of learning style best suits their character. A certificate of completion can be recorded by their academic advisor to release them for future enrollment in online courses. These strategies will be introduced as recommendations for systematic change at BSCTC.

**Product**

A white paper was constructed to present to BSCTC administration to encourage involvement in implementation of online student success initiatives and to conduct a needs analysis to incorporate more in-depth data collection to pinpoint areas of concern. A mandated online student orientation would be recommended for implementation as well as faculty development initiatives to ensure student success practices and to enhance retention.

**Recommendations for Future Research**

Recommendation for future research will involve constructing a survey to identify reasons why students fail or withdraw. The primary reason is to identify why they are not successful in an online course. However, some identifying agents may contribute to failure or withdraw regardless of the platform. Specific criteria will address if BSCTC online courses are lacking the quality to ensure success.
Recommendations to Improve Practice

A needs analysis was conducted to identify factors that affect retention. The findings was constructed in a white paper on systematic change to share with BSCTC administration. The recommendation for change will first be addressed to the Provost Team which consists of the Provost, Associate Deans for Student Services and Academic Affairs, Directors, and administrative leaders for academic programs. A more direct approach will be providing systematic change to the Distance Learning Team to recommend online student success initiatives.

To change the way they operate, BSCTC must be involved in a process similar to the “Achieving the Dream” model. Leadership commitment will involve the President and other Administration working cooperatively in developing policies and procedures to ensure proper funding and other initiatives to promote student success. They must use data to follow the student’s performance throughout their tenure at BSCTC to keep students on track to graduate. Stakeholders both internally and externally must get engaged to develop strategies to overcome student achievement barriers. Implementation, evaluation, and improvement of strategies must focus on improving student success. Most importantly there is a need to establish a culture of continuous improvement (Rutschow, 2011).

Closing

How can BSCTC evaluate their effectiveness? Strategies to enhance retention at BSCTC will include annual planning, student evaluation of instruction, retention
data analysis, and completion reports. Each of these instruments assists with the self-assessment of BSCTC effectiveness.

As the team members increase in an online platform, it is time to play ball and ensure that all of the team members understand the rules of the game and improve their game skills as the game (course) progresses. With systematic change proposals and online orientation initiatives, BSCTC can become a top quality distance learning provider providing not only access but success. By incorporating systematic changes and developing a needs analysis to collect additional data are outlined in the white paper, BSCTC administration and faculty can invite team players, providing them with the rules of the game, and allowing them to practice the skills. Once they have completed the orientation they can receive the announcement “let’s play ball”!


References


Appendix A

Get on Board: A Roadmap to Lead Change and Enhance Retention

Submitted by

Della F. Pack, Registrar

June 6, 2013
Introduction

This white paper has been developed to communicate a proposal for change in the retention initiatives for Big Sandy Community and Technical College (BSCTC). Since retention is one of the crucial goals of BSCTC it is advisable to research retention patterns to ensure success.

BSCTC’s vision is “Empowerment through Learning”. The college as a whole must identify strategies to ensure each learner reaches their educational goal by enabling learning through the online platform. How can a student be enabled to learn? What part can faculty play? The process will begin by conducting a needs analysis to identify why students are not successful in online courses. The data collected throughout the research did not provide sufficient data as to why students were failing. Before initiating retention policies and procedures to lure faculty into developing retention strategies to enhance the learning experience data collection needs to identify what is causing failures and withdrawals from online courses.

The College values an environment that encourages, learning, individualism, diversity, cultural and global awareness, integrity and accountability, civic engagement, professional and intellectual growth, effective communication, and analytical, critical, and ethical thinking. Has BSCTC met their goals? Particularly, have we provided effective learning in our online courses? Completion reports must address reasons why students may not have been successful.
BSCTC goals are to 1) advance excellence and innovation in teaching, learning, and service, 2) increase student access, transfer, and success, 3) cultivate diversity, multiculturalism, and inclusion, 4) enhance the economic and workforce development of the communities in the Big Sandy Region, and 5) promote the recognition and value of BSCTC. The capstone referenced in this white paper was directly related to advancing excellence and increasing student access, transfer, and success. A needs analysis is necessary to enhance retention at BSCTC.

BSCTC must stay true to their mission:

“Big Sandy Community and Technical College, a member of the Kentucky Community and Technical College System, is a public, comprehensive educational institution awarding certificates, diplomas, and associate degrees. As a progressive, learning-centered institution, the College offers accessible and affordable educational, cultural, and social opportunities. Utilizing diverse methods of instructional delivery and associated services, the College provides quality learning experiences for those preparing for entry into the workforce, transferring to a baccalaureate institution, and seeking to enhance their knowledge and skills. Big Sandy Community and Technical College also delivers customized training and services responsive to the workforce needs of citizens, businesses, and industries.”

A capstone study on the retention patterns for BSCTC has identified areas in which employees of BSCTC can assist in increasing not only the drop out or failure rates but to increase the number of completers. Increasing the number of credentials awarded is currently being implemented through the “Stronger by Degrees” initiative of Kentucky Community and Technical College System (KCTCS). As employees of BSCTC we need to identify what part we will play in this initiative and others that
will not only increase enrollment but enhance retention which will lead to credential growth.

**Statement of Problem**

Retention rates at BSCTC showed online success rates for Fall 2010 at BSCTC averaged 72.6% compared to 77.8% of traditional face-to-face (F2F) courses. This signaled a concern considering one resource of a community college’s success is their retention rates. This finding is the main focus for this research. Since online enrollment plays a big part in the total headcount of BSCTC it is crucial that course delivery is providing the same results regardless of the platform.

Summer courses return a higher completion rate than fall and spring terms. The three-year percentage of failures and withdrawals for fall and spring terms ranged from 43.8%-44.1%, while summer returned an average of 12.1%. Summer courses are mostly taught online and the majority of the student body is upper classmen visiting BSCTC for the summer. It is advised to study the strategies utilized by the faculty to make their summer courses more effective.

When averaging the number of failures and the number of withdrawals, it was found that the number of failures (63.5%) was significantly higher than the withdrawals (36.5%). There needs to be strategies in place to identify the students who are at risk for failure early in the term to avoid failure.

Demographic data suggests that females are less successful in online courses than males. The total number of withdrawals and failures during Fall 2009-Summer
2012 was populated by 67% females. This could be contributed to their busy lifestyles.

This white paper has been written to raise awareness for the need to enhance retention at BSCTC to recommend strategies to collect more data to identify contributing factors. Retention data for the past three academic years (Fall 2009 – Spring 2012) has been a focus of a capstone project. This data recognized that BSCTC F2F courses averaged 79.7% success and online courses reached 76% of success. This proposal recommends that faculty become more involved in ensuring retention of their students to promote the initiative to increase the overall number of credentials awarded by BSCTC. Considering the data collected there is an immediate need to identify who is failing. More in-depth and personalized data must be collected in order to identify who is taking BSCTC online courses and analyze the characteristic data of those who perform unsatisfactory. For example, the capstone discussed the need for College Readiness. The data collected did not identify the unsuccessful students who placed in transitional courses. The needs analysis identified that it was necessary to collect more data to compare the failure and withdrawals rates and identify how many have not completed their transitional courses prior to enrollment in an online course. CIS 100 will be the base course to analyze due to the number of students involved. The data will be extracted from PeopleSoft by identifying the students who failed or withdrew and analyze each student’s assessment scores and identify who was required to take transitional
GOING THE DISTANCE

courses. Further analysis will determine if they have completed their transitional coursework before enrolling in an online course, particularly CIS 100.

Seidman (2012) developed a formula for retention, which served as a model for student success. He expresses that interventions require acceptance of change. Identifying factors in his formula include early identification and intervention.

\[ \text{RET} = \text{EID} + (\text{E} + \text{IN} + \text{C}) \text{IV} \]

The Seidman Retention Formula is defined as Retention = Early Identification + (Early + Intensive + Continuous) Intervention (Seidman, 2004). A student’s skill level will be evaluated during the early identification stage of this model followed by early interventions to address weaknesses early in the student’s academic career. (Seidman, 2012, p. 272)

Faculty have the ability to build “Early Warning Alerts” in their course shells housed in Blackboard to alert them of students who are at risk. They can create the rule to best fit their course to serve as a monitoring system. Interventions will take place to assist with retaining the students identified.

Another student service utilized by BSCTC to identify students at risk is the “No Show or Lack of Participation” reporting system. Faculty periodically will report students who have stopped attending class or logging into their online course. To involve students more in an online course faculty are requiring a set amount of participation levels by creating discussion forums in Blackboard. Faculty gauge participation levels by the number of posts a student submits within the discussion
board as well as keeping track of the last date of participation with the performance dashboard of the course.

Faculty serve in both instructional and advising capacities to BSCTC students. Faculty need to enhance their skills in both dimensions of instruction and advising to promote student success. Retention strategies can be implemented at the advising level of enrollment. Students need to be guided toward skill building opportunities to increase their likelihood of graduating.

**Solutions**

Faculty development workshops are a beginning to propose systematic change in student retention. Workshops provided on a bi-annual basis needs to be constructed to involve training on advising strategies and enrollment strategies to enhance retention at BSCTC. Student success strategies can be incorporated into new student orientation seminars to raise awareness on student success strategies.

Advising workshops need to include raising awareness of the types of course delivery platforms available at BSCTC. Problems identified in the capstone projected that BSCTC online courses are not as successful as F2F courses. This raises much concern considering the enrollment numbers of online courses.

To adhere to the goals set aside by BSCTC this white paper will recommend the continuation of transformation initiatives as outlined in BSCTC Strategic Plan 2010-2016. To increase student access, transfer and success, documentation of retention, credential completions, and transfer rates need to be analyzed. Annual review initiatives will include areas of advising and student services. Comparisons on
a yearly basis need to be performed for advising, instruction, retention, graduation, and transfer. Advising workshops need to be conducted bi-annually to keep advisors up to date on policies and degree requirements.

**Product**

This white paper has addressed simple strategies to assist with online student retention and F2F retention. Futuristic proposals will include the development of data collection strategies to assist with student success.

Recommendations for closing the achievement gap include the implementation of processes to increase student success following the “Achieving the Dream” process. Administration must commit to improving student outcomes. Collection of enrollment and completion data must be used to prioritize actions. Engagement of Faculty and Staff as stakeholders must be involved to develop appropriate plan of actions. Implementation, evaluation, and improvement strategies will assist with the establishment of a culture of continuous improvement. By following these strategies BSCTC can improve student outcomes, execute further research on student progress, and implement effectiveness programs. The overall goal for following the 5-step process is success for all students (Rutschow, 2011).

Grade roster reporting will begin the process by identifying courses that are returning less than an 80% success rate. Completion reports for developmental students will play a key role in student achievement data. Grade comparisons among 100 level and 200 level courses will be analyzed to raise awareness of retention
enhancement. Other performance factors requiring analysis will include letter grade comparisons, term statistics, and credential completion.

**Retention Enhancement Strategies**

**Early alerts.** Set early alert warnings in each course for every assignment or exam when the student scores below 70%. Students can be directed to mentoring and tutoring programs available online or at their Home Campus. Faculty will be advised to hold online office hours to meet with students who cannot travel on campus. Vision is to have 100% participation of online faculty.

**Assessment strategies.** Create study guides for each major exam. Encourage faculty to provide practice test with unlimited attempts covering the course material prior to the exam. Student must obtain at least an 80% on the practice test before attempting the graded exam. Vision is to have 100% participation of online faculty.

**Participation strategies.** Student failing to log into a course within a satisfactory time frame should be contacted by email. Recommend that faculty check online attendance at least one time per week for a 16-week course and more frequently in shorter timeframes. Vision is to have 100% participation of online faculty.

**Roster reporting strategies.** Roster reporting will occur three times throughout the semester. The first roster reporting will report students who failed to attend class or who failed to log into their online class during the first week of class. BSCTC Administration needs to make this a mandatory requirement for all faculty. The Registrar’s office will keep track of the roster reporting and will notify the
Associate Dean in areas where roster reporting is not being recognized. The second roster report will be conducted for the Return to Title IV policy for financial aid recipients. Roster reporting will occur when 60% of a course has been completed. Faculty would report students who are not attending class and who have stopped participating in the online environment noting their last day of participation. BSCTC Administration will be asked to make this task mandatory. Participation percentages will be reported to Academic Dean’s and Provost Office to entice faculty to participate. Vision is to have a 100% participation level among all faculty regardless of the teaching platform.

**Vision**

BSCTC will increase their retention rate by 3% for the 2013-14 school year. By increasing the overall retention rate, BSCTC will be provided an opportunity to award more credentials and students will continue their program completion strategies at a quicker pace.

**Conclusion**

The proposal for systematic change is essential to the success of any community college. Strategic plans and improvement strategies should be revisited on an annual basis inviting all parties to evaluate the past, present and future to ensure success.

BSCTC administration and all other stakeholders should familiarize themselves with the data collection analysis. The process can begin with grade roster reporting comparing prior year statistics to the present. Data comparisons should
guide improvement measurements. Faculty development initiatives should link to the areas alerting the need for data collection to increase retention in online courses. Strategies addressing the need to enhance retention will continue to improve the credibility of BSCTC faculty performance and student success. The effectiveness of course delivery will ensure the meeting of the strategic goal of increasing student access, transfer, and success.
VITA

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