THE RELATIONSHIP BETWEEN FRESHMAN STUDENT RETENTION
AND USE OF AN ONLINE PARENT PORTAL

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ABSTRACT

Bachelor degree attainment in Tennessee is lower than the national average, which can have a dramatic impact on the quality of life for Tennesseans. Postsecondary institutions have been tasked with increasing the number of students who graduate, and this begins with retention of students. Retention of first-year students is a puzzle for institutions, however, the importance of retention cannot be minimized. The University of Tennessee at Martin has implemented an online Parent Portal to intentionally support the assistance of parents in increasing student success and retention. A stratified random sample of 300 freshman-level students who began during the 2012-2013 academic year was analyzed. Specifically, three separate chi-square tests were conducted to explore for relationships between retention and use of the Parent Portal. In addition, a chi-square test was analyzed to determine if a relationship existed between parents who accessed the Parent Portal and the students who took advantage of academic support services. An ANOVA was used to investigate differences in end-of-year grade-point averages, grouped by the number of times a parent accessed the portal. The final test conducted during this research study was a point-biserial correlation analysis. This test was used to investigate the relationship between a student’s academic ability, as measured by ACT composite score, and the likelihood that a parent would access the Parent Portal. Two significant findings were revealed. First, the end-of-year GPA was highest for students whose parents accessed the portal between one and five times, but lowest for students whose parents did not have access. In addition, the data showed a significant difference between the retention rates of students whose parents did not have access to the Parent Portal and those students whose parents accessed it. These findings
provide support for continuing to develop balanced parent initiatives that encourage involvement, while helping students to become self-sufficient and independent.

Recommendations for further research are suggested in the areas of effective parent programming, how to best educate parents about the benefits of students using academic support services, and the effective use of multiple communication channels based on other demographics not considered in this study.
DEDICATION

To my family for their never-ending support and encouragement, I cannot imagine having completed this journey without you. It is because of each of you that I have had the opportunity to grow to be the person I am today. I will love and thank you always.
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Three incredible mentors, Dr. Katherine High, Dr. Margaret Toston, and Dr. Jerald Ogg have impacted my life’s journey over the past several years. Dr. High has been the role model that I have sought to emulate since I first met her. She has been the catalyst for understanding the unlimited possibilities for the direction of my life. Dr. Toston was the impetus that I needed to begin my doctoral journey; she opened my eyes to recognize my ability to accomplish this challenging goal. She gave me the nudge I needed to reach for what I may have never been brave enough to reach for otherwise. Finally, Dr. Ogg’s supportive leadership created an environment that nurtured my continued growth and progress throughout this adventure. Without his support and encouragement I may have never realized this level of self-actualization. I will be forever grateful to each of these mentors.

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LIST OF ABBREVIATIONS

ACT, American College Test
ANOVA, Analysis of Variance
CCTA, Complete College Tennessee Act of 2010
CRM, Constituent Relationship Management
DF, Degrees of Freedom
FERPA, Family Educational Rights and Privacy Act
FR, Freshman
FRED, Federal Reserve Data
FT/FT, First-time, Full-time
GPA, Grade-Point Average
HS, High School
I-E-O, Input-Environment-Outcome
IRB, Institutional Review Board
IRS, Internal Revenue Service
NCES, National Center for Education Statistics
NSSE, National Survey of Student Engagement
SOAR, Summer Orientation and Registration
SPSS, Statistical Package for the Social Sciences
THEC, Tennessee Higher Education Commission
LIST OF SYMBOLS

∞, Alpha

β, Beta

$F$, F-ratio

$p$, Significance Level

$r$, Correlation Coefficient

$r_{pb}$, Correlation Coefficient for Point-Biserial

$\chi^2$, Chi-square

$\omega$, Effect Size (Omega)
CHAPTER I
INTRODUCTION

According to the National Center for Education Statistics (NCES) (2010), Tennessee is below the national average for persons 25 years and older who have attained a bachelor’s degree or higher. Statistical data in 2006-2008 showed that almost 78 percent of Tennessee citizens over 25 years of age were without a bachelor’s degree (NCES, 2010). The rate was even lower in 2011, showing only 15.3 percent of this population held a bachelor’s degree (THEC, 2013). The Tennessee state legislature has mandated that these statistics be improved, as demonstrated by the development of the Tennessee outcomes-based formula funding model (THEC, 2010). Each public institution in the higher education arena in Tennessee must find methods to improve retention and graduation rates if it is to continue to be competitively funded in the higher education arena. The first-time, full-time freshman retention rate for The University of Tennessee at Martin was only 70.8 percent for the academic year 2009-2010, which is below the average retention rate of 83.9 percent for all Tennessee freshmen (THEC, 2012; UTM, 2011). Braxton, Hirschy, and McClendon (2004) indicate that realizing positive outcomes is important enough that “Policymakers are setting benchmarks for retention, asking campuses to become responsible for decreasing attrition and promoting students’ success” (p. xi).
Background to the Problem

Retention of students is a problem for both secondary and postsecondary schools (Pascarella & Terenzini, 2005). According to Chapman, Laird, Ifill, KewalRamani, and National Center for Education (2011), “In October 2009, approximately 3.0 million 16- through 24-year-olds were not enrolled in high school and had not earned a high school diploma or alternative credential” (p. 8). According to Richmond (2013), Christopher Swanson, vice president of the Editorial Projects in Education, states “The personal stakes for someone who doesn’t at least finish their high school education are dire..., but it’s so important for what they’re able to do with their lives after that” (para. 7). A research study conducted by Song, Benin, and Glick (2012) suggests, students who do not have the support of both parents are more likely to leave high school before graduating. The retention of high school students has been a goal of secondary schools for many years.

Student retention has been a concern for institutions of higher education for many years as well (Bean, 2003; Black, 2001; Braxton et al., 2004; Evans, Forney, & Guido-DiBrito, 1998; Kuh, Kinzie, Schuh, & Whitt, 2005; Pascarella & Terenzini, 2005; Tinto, 1993, 1999). Braxton et al. (2004) indicate that “Approximately 50 percent of students leave higher education” (p. xi) without attaining a degree. This results in many consequences for the country, as well as for the state of Tennessee. Postsecondary institutions not only lose critical funding from the state, but those “Individuals who do not continue may lead vastly different lives from those they would lead if they had completed their course of study” (Braxton et al., 2004, p. xi).

According to a report by The University of Tennessee’s Center for Business and Economic Research, “Students who didn’t finish college earned about $10,000 less than their peers with degrees in the same seven-year period after college” ("College pays off," 2012). The
research of Matković and Kogan (2014) indicates that individuals with completed degrees have quicker entry into, and higher-status jobs than those students who dropped out. In addition, The University of Tennessee at Martin’s Chancellor, Thomas Rakes, indicated during a meeting with faculty and staff that many businesses refuse to relocate to areas that do not have an educated workforce (T. Rakes, personal communication, August 2010). The lack of businesses may result in higher than average unemployment rates; for example, FRED, Federal Reserve Data, from the Federal Reserve Bank of St. Louis indicates that Weakley County, Tennessee has experienced unemployment rates as high as 15.7 percent in August 2009 (FRED, 2013). In July 2013, the unemployment rate remained 14.4 percent, which severely handicaps the local economy (FRED, 2013).

In today’s knowledge-based global economy, the need for an educated and skilled workforce is even more important if unemployment rates are to be kept under control and Tennessee’s leaders continue to hold higher education accountable for improving performance (Cohen & Kallison, 2010). Improved performance has been the focus in Tennessee since the implementation of the Complete College Tennessee Act (CCTA) of 2010 (THEC, 2011). Universities have been charged with the task of improving persistence, progression, and graduation since the implementation of the CCTA. Improving these statistics can lead to an increase in the number of degreed citizens in Tennessee (Carney-Hall, 2008; Cohen & Kallison, 2010; McKeown-Moak, 2013; Salas & Alexander, 2008; Scott & Daniel, 2001; THEC, 2011, 2012).

Traditional funding models in Tennessee higher education were enrollment-driven; however, McKeown-Moak (2013) states, “In 2010, the formula (in Tennessee) was redesigned to focus on outputs” (p. 9). Several key benchmarks used to determine the institution’s total
funding allocation were “outcomes such as degree completion, transfer, [and] retention” (McKeown-Moak, 2013, p. 9). Miao (2012) similarly points out that “Ongoing budget cuts, combined with stagnating graduation rates and a rising national demand for highly educated workers, make it increasingly important for states to invest in completion” (p. 1). The CCTA of 2010 requires public institutions in Tennessee to improve performance in these critical areas in order to receive state funding support (THEC, 2011).

Each institution must develop a plan for retaining and graduating students. In the current age of instant communication through increased technology, universities have begun to use web-based resources to engage their constituents (Salas & Alexander, 2008). Personalized web pages and portals make it easy to disseminate important information to a targeted audience, while tracking usage patterns for statistical measurement and evaluation (Salas & Alexander, 2008). According to Merriman (2008), using technology to take a proactive approach toward addressing student success includes the development of “Parent web sites [which] invite parents to e-mail directly with questions and concerns” (p. 58).

Parent portals are one method that institutions of higher education are using as a tool to assist in reaching retention and graduation benchmarks. With the proper release forms on file, information that may be shared on parent-accessed portals can include financial information, academic resources, and student academic progress. Faculty can provide feedback in regard to student attendance, test scores, and perceived behavioral issues, which can then be provided to the parents who have access to the portal. Parents who are made aware of faculty concerns in regard to their student might have the information it takes to begin a conversation with their student about what it takes to be successful in college. Online portals for parents can help to assist parents in supporting student success and retention.
Statement of the Problem

The problem studied was whether there is a relationship between freshman retention and the use of innovative technology; specifically, the use of an online portal for parents. Tinto (1993) compares

The process of student persistence [in college] as functionally similar to that of becoming incorporated into the life of human communities generally and that this process, especially in the first year of college, is also marked by stages of passage, through which individuals must typically pass in order to persist in college. (p. 94)

Movement between adolescence and adulthood occurs in stages and many students find this change somewhat disorienting (Tinto, 1999). Institutions of higher education must proactively develop programs that reduce this uncertainty, which will help to foster student community connectedness and, ultimately, retention.

Objectives of the Study

The University of Tennessee at Martin is not satisfied with its first-time, full-time student retention rate; therefore, the University’s leadership proactively implemented an intervention strategy that intentionally elicits parental involvement during the student’s critical first-year transitional period. The university has developed a web site, known as the Parent Portal, which acts as a secure entry point for parents to access their student’s financial information, billing information, grades, and other important success resources. Individual parent involvement can provide students with the family support needed to positively affect persistence, allowing time for students to adjust to their new environments (Cabrera, Castañeda, Nora, & Hengstler, 1992).

Students who are transitioning from high school to the university must learn to cope with the new environment, increased academic demands, and social adjustments (Wintre et al., 2011). Attrition has been attributed to many factors; however, first-time, full-time freshman students are
especially susceptible to withdrawing from the university because of the difficulties typically experienced in adjusting to new demands and expectations (Wintre et al., 2011). According to Wintre et al. (2011), “Individuals [(students)] who perceive sufficient support from their parents are likely to have acquired the ability to cope with new and challenging situations…and [are] less likely to be depressed” (p. 469). Successful adjustment to college life has been shown to be critical in reducing college student departure; therefore, institutions must implement initiatives that can help students reduce anxiety and more quickly adjust to their new environment (Braxton et al., 2004; Pascarella & Terenzini, 2005; Tinto, 1993, 1999). The purpose of this research was to assess whether parental use of The University of Tennessee at Martin online Parent Portal, during students’ critical first-year, is associated with a change in the number of first-time, full-time students who are retained.

Research Questions/Related Hypotheses

This writer’s research included three primary questions, numbered 1-3, and three secondary questions, lettered a-c, as follows:

1. Are freshmen students of parents who have access to, and interact with, The University of Tennessee at Martin’s online Parent Portal retained at a different rate (in greater proportions) than those whose parents do not interact?
   
   a. Are freshmen students of parents who interact with the online Parent Portal more likely to take advantage of The University of Tennessee at Martin’s student support services?

   b. Are freshmen students of parents who interact with The University of Tennessee at Martin’s online Parent Portal more likely to have a higher first-year grade-point average than the other freshmen students?

   c. Are the parents of freshmen students with greater academic ability, as measured by ACT composite score, more likely to interact with The University of Tennessee at Martin’s online Parent Portal?
2. Are freshmen students of parents who have access to, but do not interact with, The University of Tennessee at Martin’s online Parent Portal retained at a similar rate as those whose parents do not have access?

3. Are freshmen students of parents who do not have access to the online Parent Portal retained at a lower rate than those whose parents have access to, and interact with, The University of Tennessee at Martin’s online Parent Portal?

Rationale for the Study

The University of Tennessee at Martin has limited resources to invest in retention and student success initiatives. It is important to assess whether the initiatives that are implemented are effective in improving student retention and success, or whether the resources should be reallocated to alternative programs. This study assessed whether the investment of the University’s limited resources into the Parent Portal was related to effective outcomes in the areas of retention and student success. An analysis was conducted to determine whether a relationship existed between the following variables:

- ‘Status of parental usage 1’ (did access/did not access) and ‘Retention status’ (retained/not retained)
- ‘Status of parental usage 1’ (did access/did not access) and ‘Whether students accessed support services’ (yes/no)
- ‘Degree of usage’ and ‘First-year GPA’
- ‘ACT composite score’ and ‘Status of parental usage 1c’ (did access/did not access)
- ‘Status of parental usage 2’ (no access/did not access) and ‘Retention status’ (retained/not retained)
- ‘Status of parental usage 3’ (no access/did access) and ‘Retention status’ (retained/not retained)

The data showed that there was a relationship between the variables analyzed in two of the statistical tests. Therefore, justification may exist for continued financial support of the program.
Theoretical/Conceptual Framework

The conceptual framework utilized for this research shows the interconnected relationship between the student, the parent, and the university. The symbolic framework depicted in figures 1.1-1.3 demonstrates the three types of interaction found within the university environment. The framework is grounded in Interactionalist Theory developed by Vincent Tinto (Braxton et al., 2004; Tinto, 1993). In addition, the framework draws upon the concepts of Identity Theory, which focuses on the development of the college student and the process of young adults as they move through seven vectors: developing competence, managing emotions, moving through autonomy toward interdependence, developing mature interpersonal relationships, establishing identity, developing purpose, and developing integrity (Chickering & Reisser, 1993). Finally, the conceptual framework uses the core concepts of Attachment Theory, which is a result of the combined efforts of John Bowlby and Mary Ainsworth (Ainsworth & Bowlby, 1991).

Retention rates can be affected by internal and external factors; for example, several factors include perception of environment, social integration and engagement, and parental support. Each of these may lead to increased student departure if not monitored and addressed to foster student engagement. Although student departure can be attributed to many factors, according to (Braxton et al., 2004), Tinto’s Interactionalist Theory suggests that student departure is a “longitudinal process that occurs because of the meanings the individual student ascribes to his or her interactions with the formal and informal dimensions of a given college or university” (p. 7). In other words, a student’s perception of the university environment can determine whether he or she will stay or leave the school (Tinto, 1993). Students want to know
that they are cared about on an individual level by faculty, staff, and other university personnel (Pascarella & Terenzini, 2005).

The connections that a student makes with faculty, staff, and other students can play a role in the level at which the student engages with the university. Until these connections have been formed, additional student support may be required. Tinto (1993) suggests that students must “manage the pains often associated with first-time separation from the family” (p. 46). Students need support from others during this time of transition; for example, support from parents, spouses and friends can be critically important (Braxton et al., 2004). Without support, many students suffer anxiety due to separation and may “flounder and withdraw without having made a serious attempt to adjust to the life of the college” (Tinto, 1993, p. 47).

Parents who have earned a college credential may have experienced firsthand the benefits of attending college; however, parents of first-generation college students “may question the value of college attendance” (Braxton et al., 2004, p. 76). It is important that the institution demonstrates the benefit of attending college to all families, but it may be even more critical to do so for the first-generation family. The college should make an effort to encourage a positive familial support system for every student who enrolls.

It may be helpful to increase parents’ involvement with the university so that they can “support the goals of college education, [and]…aid persistence” (Tinto, 1993, p. 62). Many families make a significant financial commitment when they decide to support their child’s college attendance. The decision to spend money to send a child to college should be an intentional one, and it is often based upon the perceived benefits compared to costs of doing so. It is critically important to demonstrate the advantages that the student will gain by obtaining a college education, if the institution is to waver support from many first-generation parents.
Attention should be paid to the needs of the students’ parents. Bretherton (1992) emphasizes this point when quoting the work of Bowlby (1951), which states, “If a community values its children it must cherish their parents” (p. 766).

Parents play a significant role in influencing an individual’s ability to adjust to new environments both psychologically and psychosocially (Mattanah, Hancock, & Brand, 2004; Mattanah, Lopez, & Govern, 2011). The conceptual framework, attachment theory, developed by John Bowlby and Mary Ainsworth, encouraged the study of parent-child bonds and how those bonds influence personal adjustment in new environments (Bretherton, 1992). According to Kalsner and Pistole (2003), “Attachment theory is an evolutionary, ethological theory formulated by Bowlby (1988) to explain the enduring affectional ties that individuals make to particular figures throughout their life span” (p. 92). These authors also point out that students who have previously developed healthy parent-child attachments have the advantage of individual safety nets, reducing the anxiety associated with adapting to the new college environment (Kalsner & Pistole, 2003). Students who have a strong sense of attachment with parents are also more likely to master the academic and social challenges of college. In addition, when they do face challenges, they are less likely to respond to them by giving up or leaving college (Kalsner & Pistole, 2003).

In the traditional university communication model, shown in figure 1.1, parents and university faculty and staff interact directly with the student; however, there is a lack of communication between the parent and the university. The student is considered an adult for all university purposes and the parent does not have contact with the university. According to this model, the student should communicate with the university separately from the parent. Daniel, Evans, and Scott (2001) posit that, “Just as society once followed clearly delineated roles and
mores, so too did higher education once have clear parameters for engaging, or choosing not to engage, families” (p. 3).

Figure 1.1 Traditional Communication—schematic representation of the traditional university communication flow between student, parent, and university. Communication occurred at the points of intersection.

Figure 1.2 represents the uncontrolled university communication model. This model represents the strong parent-child relationship seen on many campuses today. Parents interact with university administrators, faculty and staff directly, rather than allowing their children to communicate many of the daily issues. Daniel et al. (2001) state, “Parents who regard college-age students as children rather than adults will become more involved in students’ lives” (p. 7).
Stories have been shared across the country of “parents who will telephone faculty members or deans when students tell them about inattention or perceived injustices” (p. 7). There are no clear boundaries between the parent, the student, and the university in the uncontrolled university communication model.

Figure 1.2 Uncontrolled Communication—schematic representation of the current uncontrolled university communication flow between student, parent, and university. Communication occurs at the points of intersection.

Presented in figure 1.3 is a graphical representation of the integrated communication model. This model intends to reflect a more balanced approach to parent involvement in the student college lifecycle. It depicts a balanced relationship between parent and student, parent and university, and student and university, while giving validity to the need for collaborative efforts on some issues. Daniel et al. (2001) suggest that the need for an integrated approach of
communication is important, “It therefore is necessary for colleges and universities to assess the environment and create a plan to connect with families intentionally, rather than let random situations set the course for their interactions” (p. 9). Intentionally integrating communication between students, parents, and the university will provide students with the support they need to successfully transition from high school to college. In addition, the integrated model of communication considers parental separation anxiety while responding to the need for the new student to positively experience the separation-individuation process (Kins, Soenens, & Beyers, 2011; Rice, Cole, & Lapsley, 1990).

![Integrated Communication Schematic](image)

Figure 1.3 Integrated Communication—schematic representation of an integrated communication flow between student, parent, and university. Communication occurs at the points that overlap.
As shown in the diagram, providing an avenue for parents to interact directly with the university’s personnel, whether through parent associations or parent offices that monitor email sent personally by parents, parental needs are addressed in the integrated communication model (Daniel et al., 2001; Junco & Cole-Avent, 2008; Ward-Roof, Heaton, & Coburn, 2008).

Tinto (1993) maintains:

It is possible to envision the process of student persistence as functionally similar to that of becoming incorporated into the life of human communities generally and that this process, especially in the first year of college, is also marked by stages of passage, through which individuals must typically pass in order to persist in college. (p. 94)

Movement between adolescence and adulthood occurs in stages and many students find this change somewhat disorienting (Tinto, 1999). Institutions of higher education must proactively develop programs that reduce this uncertainty and anxiety, which will help to foster student community connectedness and ultimately, retention.

The University of Tennessee at Martin is not satisfied with its first-time, full-time student retention rate; therefore, the University’s leadership proactively implemented an intervention strategy that intentionally elicits parental involvement during the student’s critical first-year transitional period. The University has developed a web site, known as the Parent Portal, which acts as a secure entry point for parents to access their student’s financial information, billing information, grades, and other important success resources. Individual parent involvement can provide students with the family support needed to positively affect persistence, allowing time for students to adjust to their new environments (Cabrera et al., 1992). The purpose of this research was to determine whether parental use of The University of Tennessee at Martin online Parent Portal, during students’ critical first-year, is related to first-time, full-time student retention.
Significance/Importance of the Study

The research findings from this study can benefit university administrators, faculty, and other audiences, such as students and parents, by guiding each to make more informed decisions about how to best aid in the academic success of their students (Kuh, 2007). In addition, it can provide decision-makers with data to show whether intentionally involving parents in their student’s college transitional period, via an online parent portal, is related to the retention of first-time, full-time students. Tennessee public postsecondary institutions must increase college student retention in order to receive state funding; therefore, it is critical for The University of Tennessee at Martin to be proactive in reducing student attrition if it is to remain competitively funded. Equally important, research has shown that increasing the number of individuals who possess a bachelor’s degree will positively affect those individuals’ lifetime earnings, decrease incarceration rates, and decrease dependency on public social programs (Baum & Payea, 2005). Lastly, the results of this study may help future researchers better understand where gaps exist and where further research is needed to improve the overall body of knowledge on freshman retention.

Definition of Terms

For the purpose of this study:

- Ability: was measured by ACT score.

- Active parent: was the act of a parent logging into the myUTMartinParent Portal at least one time.

- At-risk student: was a student who, due to their demographics or behavior, was at an increased risk of leaving the university before earning a bachelors degree.

- Baseline retention rate: was the retention rate for first-time, full-time freshmen the semester prior to the implementation of the CRM program.
• Cultural capital: is the value students gain from their parents as a result of the parent previously attending a postsecondary institution.

• Early alert: is a notification that a student is displaying behaviors that may put him/her academically at-risk.

• Engaged parent: is the act of a parent logging into the myUTMartinParent Portal and clicking on at least one hyperlink.

• FERPA: is an acronym for Family Educational Rights and Privacy Act and federally mandates the privacy of personally identifiable information for all enrolled postsecondary students.

• First-generation student: is any student whose parents never attended a postsecondary institution.

• Formula funding: is the formula developed by the state to determine how financial resources are allocated to the public postsecondary institutions in the state of Tennessee.

• Helicopter parent: is a parent who is actively involved in his/her child’s academic life (Lipka, 2007; Somers & Settle, 2010).

• In loco parentis: represents a university official acting in the place of a parent.

• Millennial student: is a student who was born between the early 1980s and today; this population makes up most of the current traditional age students (Howe & Strauss, 2007).

• Outcomes-based: is used to describe retention and graduation requirements for postsecondary institutions. It is based upon the number of students who are retained and graduated rather than the number of students who are recruited and enrolled.

• Parental involvement: was based on use of the myUTMartinParent Portal; the three levels of involvement include no access and no activity, have access and no activity, have access and show active or engaged activity.

• Parent Portal: is a web site that provides parents with a secure entry point to student information, also known as myUTMartinParent Portal.

• Retained: a first-time, full-time student who began in the fall semester and is still enrolled in the following fall semester.

• Retention: is the rate at which a first-time, full-time college student persists from the freshman to the sophomore year.

• Social integration: is the level of social engagement demonstrated by a college student.
• Traditional-age college student: is in the age range 18-22 years.

Research Assumptions

The researcher made several assumptions in the design of this quantitative study. It is important that readers remain cognizant of the assumptions listed below when considering the outcome of the study. Future findings of the study could be different if alternative assumptions are presumed.

• That parents want to know how their student is performing academically.

• That parents value their children attending an institution of higher education.

• That the faculty will report attendance and academic progress information when surveyed.

• That the parents will log into the myUTMartinParent Portal regularly to monitor their student’s progress.

• That the Parent Portal will be enough to satisfy the parents’ need for involvement and not encourage the parent to take over for the student by calling the professors and advisors.

• That the parent will allow the student to mature and grow by handling his/her own problems, yet provide a familiar support system, or safety net, during the transition.

• There will be a balance between parental attachment and autonomy of the college student.

Delimitations of the Study

Several self-imposed delimitations of this research should be acknowledged. This researcher limited the study’s portal participants to those who had signed a Family Educational Rights and Privacy Act (FERPA) release form (or had proactively sought to provide evidence of their student’s IRS tax dependency status). The privacy release form provided written permission to the university to provide parents access to personally identifiable information,
including grades and other academic and financial information. In addition, participants were limited to first-time, full-time college students at The University of Tennessee at Martin. These delimitations imposed a possible limitation since they may have favored participants who were most actively involved in their student’s lives already.

Limitations of the Study

This researcher attempted to determine if there was a relationship between a parent’s use of an online parent portal and college student retention; however, in addition to the self-imposed delimitations, several uncontrollable limitations should be acknowledged. Research assumptions, delimitations, and limitations should be taken into account before relying on the outcome of the research. First, the effectiveness of the Parent Portal may have been limited by the parents’ active use of e-mail, portal, and/or other online technology. Communication with parents occurred with the use of these technologies and was dependent upon the parents’ ease of access to electronic online resources. In addition, the level of engagement with the Parent Portal may have had a limiting effect on the usefulness of the initiative. Disparities may have occurred between the parent who simply logged into the portal and the parent who navigated through the links and various resources provided.

The research was also limited by the faculty members’ willingness to actively participate in the early alert program. The faculty members were given the option whether to provide information about students who were demonstrating behaviors that might put the student at-risk of failing academically. If students were not attending class or were not performing well on assignments, the faculty members had the ability to provide that information through the CRM tool. When the faculty provided information, the information was displayed on the Parent Portal
for parents to see. Providing academic progress reports to parents via the Parent Portal was a key
to making the portal useful.

Past faculty participation results with the optional early alert program were limited. There was approximately 35 percent of faculty who voluntarily participated in the early alert program. The remaining 65 percent of faculty did not elect to participate in the optional early alert reporting, reducing the frequency of updated and personalized information displayed on the portal site. Increasing faculty involvement could greatly enhance the usefulness of the portal’s content, making it more dynamic and meaningful to the parents. The Parent Portal, at minimum, provided parents with the mandatory attendance alerts, mid-term grades, and final grades; however, increased reporting between the submissions of these three benchmarks could provide more beneficial information.

Another potential limitation was accounting for students who became ill during the semester(s) and may have left school unexpectedly. Attrition, due to a student’s health, could have inappropriately misled the researcher’s interpretation of the study’s observed outcome. Similarly, changes in available financial aid and the economic conditions surrounding a student can result in a student leaving college. These unforeseen changes in a college student’s external environment were limitations of this study as well. Likewise, changes in admission standards or recruiting practices can cause a change in the student academic profile; for example, changes in the level of ethnic diversity, the number of first-generation college students who enroll, and the level of student academic preparation may result in a shift in the needed academic, social, and other critical areas of support for the new student profile. Changes such as these may require increased need for additional student academic support services to maintain a similar level of
student retention. Support services included, but were not limited to, tutoring services, math lab, writing center, reading center, and counseling services.

A final limitation may have existed as a result of the selection and assignment of parent access groupings. The parent access groups were defined based upon the researcher’s visual inspection of the natural breaks in parent access patterns. If outliers in the data had been taken into account, it may have had an effect on the results of the study. Without further research to determine if the natural breaks were most appropriate, the findings could have been limited.
CHAPTER II
LITERATURE REVIEW

Introduction

Parents’ increasing involvement in their students’ lives has been shown to have mixed consequences, with balance appearing to be the main determinant of whether the consequences are positive or negative (Agliata & Renk, 2008; Bryan & Simmons, 2009; Carney-Hall, 2008; Daniel et al., 2001; Gerdes, 2004; Han & Dong, n.d.; Hoover, 2008; Kanat-Maymon & Assor, 2010; Lipka, 2007; Somers & Settle, 2010; White, 2005). Many derogatory labels are placed on parents and students when University personnel reflect upon the interdependent nature of today’s families. Students who remain involved with their parents are similarly labeled with derogatory titles.

The parents who seem to be unwilling to let their children make independent decisions even after enrolling in a post-secondary institution are often referred to as *helicopter parents*, *helopats*, *lawn mowers*, *blackhawk parents*, *agents*, *white knights*, and *iparents*, while their students are called *kangaroo kids*, *parasite singles*, and *millennials* (Han & Dong, n.d.; Hoover, 2008; Howe & Strauss, 2007; Lipka, 2007; Lum, 2006; Marcus, 2010; Somers & Settle, 2010; White, 2005; Wolf, Sax, & Harper, 2009). These labels are a reflection of the attitudes of many college and university employees in response to the level of today’s parent-student relationship. University personnel have been known to seek out strategies to separate parent and student.
According to Shellenbarger (2005), one university uses “parent bouncers,” (para. 6) to divert parents from involving themselves in their student’s college activities.

Taub (2008) posits, “Today’s students are...frequently initiating contact and calling upon their parents for assistance” (p. 16). Some colleges and universities have found it necessary to make adjustments to their organizational structure and add a new parent services department to answer parents’ calls and emails (Shellenbarger, 2005). It has also been shown that parents from low socioeconomic status, of first-generation students, and of minority students may need additional assistance in navigating the higher education environment (Duffy, 2007; Ward, Siegel, & Davenport, 2012; Wintre & Yaffe, 2000). Given students’ desire for contact with their parents, further review in the areas of psychosocial theories, student development, and channels of communication with parents were conducted to build an awareness and deeper understanding of what research currently exists.

Review of the Literature

The National Survey of Student Engagement (NSSE) (2007) data suggest students with helicopter parents (those in frequent contact and frequently intervening on their student’s behalf) reported higher levels of engagement, more frequent use of deep learning activities and greater gains on a host of desired college outcomes, and greater satisfaction with the college experience. (p. 25)

The NSSE (2007) data indicate that intentionally involving parents in the college student’s experience may positively affect student satisfaction. However, there is also research that indicates that excessive parental contact may hinder the college student’s growth and maturity (Kenny, 1994; Marcus, 2010). The positive aspects of parental involvement, such as student engagement, constructive feedback, higher student satisfaction levels, and greater levels of academic and social adjustment, as well as higher levels of self-efficacy and self-control can be realized when the right balance of involvement exists (Agliata & Renk, 2008; Carney-Hall,
2008; Hoover, 2008; LaBrie, Hummer, Lac, Ehret, & Kenney, 2011; Lum, 2006; Somers & Settle, 2010; Wetherill, Neal, & Fromme, 2010). In addition, Larose and Boivin (1998) has found that “Perceived security to parents at the end of high school predicts positive changes in expectations of support and socioemotional adjustment across the transition” (p. 1) from high school to college.

According to Taub (2008), over the past several decades, universities across the country have dismissed parents as serving a role on college campuses; however, the role of parents of college students today may not be so easily ignored, especially considering the diversity of the current student population. According to Kahlenberg (2004), socioeconomic status, parents’ level of education, and ethnicity may be correlated to the amount of parental involvement demonstrated; therefore, communicating with parents may have to be coordinated with the specific student population in mind. These students’ parents may find it difficult to be involved face-to-face with their students; however, with the ubiquitous nature of technology today, they may have the ability to communicate electronically (Junco & Mastrodicasa, 2007).

Pryor, Hurtado, Korn, and Sharkness (2007) report that data gathered from the Higher Education Research Institute at the University of California, Los Angeles, indicated that most college students want their parents to be involved in their college experiences and initiate contact on a daily basis. Intentionally including parents in the college experience can take many forms, including the creation of parent associations, increased number of family events, and inclusion of regular communications via email, newsletters, and parent offices (Wartman & Savage, 2008). In an attempt to understand the effects of the student-parent relationship, researchers have used attachment theory, separation-individuation theory, and Chickering’s theory to determine the ideal level of parental involvement needed to most benefit student development. A balanced
level of parent involvement is the key; however, student demographics may play a role in defining that balance.

Attachment Theory

Attachment theory can be used to help explain the parent-student relationship. John Bowlby originally conceptualized this theory in 1973 to help explain why infants and young children became distressed when separated from their primary caregivers (Schwartz & Buboltz, 2004). Attachment theory proposes that the bond between a parent and child remains stable over time (Ainsworth & Bowlby, 1991; Armsden & Greenberg, 1987; Kalsner & Pistole, 2003; Kenny, 1994; Somers & Settle, 2010; Trice, 2002; Wolf et al., 2009). According to Wolf et al. (2009), “Students from underrepresented groups—namely, low-income, immigrant, and first-generation—are presumed to come from families...with...lower involvement in their children’s education” (p. 330). This lack of involvement continues into college because these parents have less knowledge about the campus environment than those parents who have experienced the college environment themselves (Wolf et al., 2009).

Student satisfaction surveys have repeatedly shown that college students report feeling less stressed and more able to deal with challenging situations when they interact regularly with their parents (Armsden & Greenberg, 1987; Carney-Hall, 2008; Kalsner & Pistole, 2003; Kenny, 1994; NSSE, 2007; Roekel, Goossens, Scholte, Engels, & Verhagen, 2011; Wolf et al., 2009). While parent-student attachment can be positive, research shows that the process of separation-individuation is important for development as well (Carney-Hall, 2008; Chickering & Reisser, 1993; Grotevant & Cooper, 1998; Josselson, 1988; Kalsner & Pistole, 2003; Kenny, 1994; Lapsley & Edgerton, 2002). Attending college is the first time many young adults are faced with
leaving home, separating from parents, and defining who they want to be, all of which can be very stressful (Armsden & Greenberg, 1987; Carney-Hall, 2008; Chickering & Reisser, 1993; Kalsner & Pistole, 2003; Kenny, 1994; Lapsley & Edgerton, 2002; Wolf et al., 2009).

College students who experience balance between parental attachment and autonomy have been shown to adjust more successfully to college life (Armsden & Greenberg, 1987; Bryan & Simmons, 2009; Kalsner & Pistole, 2003; Kanat-Maymon & Assor, 2010; Kenny, 1994; Pascarella & Terenzini, 2005; Wolf et al., 2009). Wolf et al. (2009) indicate, “levels of parental involvement that may be considered ‘excessive’ for some students could for other students represent an important source of academic and social support” (p. 350). Some children desire increased interaction with parents, while others prefer more independence. The University planners must design programs that can effectively cater to students with different needs.

Institutions should be cognizant of these positive effects of parental involvement and take advantage of what has been shown to be beneficial. Somers and Settle (2010) advocate, “Support, separation, and individuation can all be accomplished through positive parent engagement” (Somers & Settle, 2010, p. 6). Similarly, Taub (2008) states, “It appears that healthy attachment to parents can support students’ development of social and interpersonal competence...while excessive support from parents can inhibit development of competence” (p. 18). Some surveys have shown that students of color and first-generation students would like greater parental involvement in their college experience (Duffy, 2007; Ward et al., 2012; Wintre & Yaffe, 2000). The parents of these populations may lack the experience to understand the dynamics and rigor of the higher education environment (Wolf et al., 2009).

Students need to be allowed to experience a balance between being challenged and supported so that they can develop and mature (Taub, 2008). According to Sorokou and
Weissbrod (2005), Bowlby (1973) suggests that parental involvement, which is balanced between independence and autonomy with caring relationships that are supportive, can provide college students with a safe and positive environment in which to mature. These researchers found that a positive relationship existed between the student’s perceived quality of the attachment relationship and the frequency of the contact with parents (Sorokou & Weissbrod, 2005). The use of email communication between students and parents has helped satisfy the parent and student need to feel attached (Trice, 2002). The balanced integration between separation-individuation and attachment has been shown to lead to positive emotional student adjustment (Schultheiss & Blustein, 1994). Finally, Cutrona, Cole, Colangelo, Assouline, and Russell (1994) found that “Parental support...significantly predicted [college] grade-point average” (p. 369), which supports the University’s plan to engage parents in the support of their students.

Developmental Theories and Identity

There are theories and models highlighting how college students change cognitively, socially, and developmentally as a result of attending post-secondary school; these include psychosocial theories, cognitive-structural theories, and person-environment interaction theories (Kuh et al., 2005; Pascarella & Terenzini, 2005). These theories focus on many important factors associated with student growth and development. For example, Chickering and Reisser (1993) described seven characteristics of student development involving differentiation and integration in adjusting to college expectations. Taub (2008) states that Chickering’s Theory is “arguably the most well-known and widely used psychosocial theory of college student development” (p. 17).
The seven characteristics or tasks, called vectors, include: achieving competence, managing emotions, moving through autonomy toward interdependence, developing mature interpersonal relationships, establishing identity, developing purpose, and developing integrity (Chickering & Reisser, 1993; Pascarella & Terenzini, 2005; Taub, 2008). Taub (2008) indicates that generally, the first two years of college help students who are attempting to develop competence, cope with emotions, establish independence, and become involved in mature interpersonal relationships. The junior and senior years focus on the later vectors, establishing identity, developing purpose, and developing integrity (Taub, 2008). Understanding student developmental patterns can help practitioners better meet the needs of the students at each developmental level.

Students who are in the second vector listed above, “moving through autonomy toward interdependence,...[cause] student affairs professionals [to] have the most concerns about the impact of parental involvement on students’ development” (Taub, 2008, p. 18). The student affairs professionals may fear the student’s development may be stunted by the parents’ involvement. Taub (2008) indicates that Chickering and Reisser explain that “Parents providing excessive emotional support can inhibit students’ development of autonomy” (p. 18). Conversely, other researchers have shown that “Students can develop autonomy without experiencing the break from parents described in Chickering’s theory and their attachment may aid their autonomy development” (Taub, 2008, p. 19).

Jean Piaget first introduced cognitive-structural theories in 1964 (Pascarella & Terenzini, 2005). While psychosocial theories focus on development of the person within, cognitive-structural theories seek to provide an understanding of how individuals move from one level of development to another (Pascarella & Terenzini, 2005). According to Pascarella and Terenzini
(2005), three of the most significant cognitive-structural developmental theorists were William Perry, Lawrence Kohlberg, and Carol Gilligan. The work of these theorists has influenced researchers’ focus and study of college students for many years and provided the foundation for later researchers’ works on student development.

The central developmental task of college students is the formation of an independent identity (Taub, 2008). However, according to Goldscheider and Davanzo (1986), “There is often an intermediate step between leaving the parental home and establishing an independent residence” (p. 187). This intermediate step is referred to as semi-autonomy and is described as a time “when young adults may live separately from their parents (as in a residence hall or an off-campus apartment) but are still dependent on their parents in important ways” (Taub, 2008, p. 19). Taub (2008) suggests that semi-autonomy may be beneficial since it provides a safety net for many students. Students may be more willing to explore college opportunities for involvement in clubs, majors, and other social and academic outlets when they have positive support from parents (Cutrona et al., 1994; Larose & Boivin, 1998; Sorokou & Weissbrod, 2005; Taub, 2008).

A high level of parental involvement in young students’ lives has been shown to make significant positive differences in student development; especially in low-income, minority, and first-generation student populations (Kreider, Caspe, Kennedy, & Weiss, 2007). It has also been shown to be important for educators to be sensitive that, “Certain patterns of family involvement processes that result in positive outcomes for youth apply to some ethnic groups but not to others” (Kreider et al., 2007, p. 8). Institutions should be aware of cultural considerations and other student demographics that could serve as barriers to college student success and ultimately, retention. Including parents in the conversation about potential barriers may be beneficial in
educating parents of the benefits of providing positive, supportive encouragement throughout the student’s college years.

**Student Engagement and Interaction**

Theories that consider the environmental and sociological impact of college on students include Astin’s input-environment-outcome (I-E-O) model and theory of involvement, which emphasizes learning through engagement, and Tinto’s theory of student departure (Pascarella & Terenzini, 2005; Tinto, 1993). The I-E-O model is a function of three factors: “inputs…, environment…, and outcomes” (Pascarella & Terenzini, 2005, p. 53). In other words, retention initiatives should consider students’ demographic characteristics, students’ campus expectations, and students’ goals and expectations.

Tinto (1993) posits that the more a student interacts and engages with the university, the greater the student’s willingness to put time and effort into achieving desired goals (Pascarella & Terenzini, 2005). Tinto’s model places an emphasis on influences that affect students while attending the institution; examples include faculty, staff, friends, and parents (Pascarella & Terenzini, 2005; Tinto, 1993). Positive interaction with the university, as well as parental support, can influence persistence (Braxton et al., 2004; Kuh et al., 2005; Pascarella & Terenzini, 2005; Tinto, 1993). These influences warrant the development of programs that engage and connect students, as well as parents, to the institution.

Students transitioning from high school to college show increased exploratory behaviors when they perceive strong parental support (Larose & Boivin, 1998). Exploratory behaviors help to speed up the separation-individuation process, thereby supporting the development of a student’s individual identity as a college student (Rice et al., 1990). However, first-generation
and low socioeconomic students may experience feelings of guilt when taking pride in attending a postsecondary institution, since it can result in upward mobility beyond their family’s status (Duffy, 2007; Ward et al., 2012). Education of incoming freshman and their parents may be helpful to alleviate the negative self-perception experienced when taking steps to move above the family’s current socioeconomic class.

Communicating with Parents

Today’s parents want to remain informed about what is happening on college campuses and how it affects their students’ lives; when the appropriate balance exists, the result can be positive (Ferrara, 2011; Gerdes, 2004; Hoover, 2008; Lipka, 2007; Lum, 2006; Somers & Settle, 2010; White, 2005). Communicating via parent newsletters, email, parent websites, prerecorded phone messages, parent portals, and through establishing designated parent offices can be helpful in disseminating information to parents (Agliata & Renk, 2008; Carney-Hall, 2008; Daniel et al., 2001; Dworkin, Gonzalez, Gengler, & Olson, 2011; Gerdes, 2004; Han & Dong, n.d.; Hoover, 2008; Lum, 2006; Somers & Settle, 2010; Trice, 2002; White, 2005; Wolf et al., 2009). Many campuses today have implemented technology to automate and streamline communication with their constituents. One such software is a technology tool called constituent relationship management (CRM). The CRM tool is currently utilized by higher education to improve communication with students, parents, and other constituents, such as alumni (Florez-Lopez & Ramon-Jeronimo, 2009; Grayson, 2010; Musico, 2008; Ramaswami, 2007; Sammis & Bailey, 2010; Seeman & O’Hara, 2006; Villano, 2007; Weinberger, 2004).

Bell (1998) suggests that a person’s family communication experience has been shown to be related to the development of their social maturity and ability to attach to other relationships.
in general. According to Pascarella and Terenzini (2005), Weidman’s model of undergraduate socialization puts forth that “The socialization process encourages [college] students to evaluate and balance influences…in order to attain personal goals” (p. 58). Attaining goals can help to reduce college student attrition. Retention may be improved by connecting with the institution’s customers, both students and parents. When considering the working-class parent, technology may provide the conduit for improved communication between the parent and the university because of its asynchronous nature (Kreider et al., 2007). Asynchronous communication methods allow parents to communicate at times that are convenient to their schedules. Convenience of the communication channel may encourage greater parent engagement from those who otherwise may have been unable to be involved.

Martin (2013) postulates,

with the revolution in electronic communication between parents and children, to say nothing of the astonishing cost of college, and the millennial’s trademark emotional closeness to their parents,...[universities have] an opportunity to make use of parental involvement to maximize the students’ academic and personal development. (para. 2).

Links have been shown to exist between use of communication technology and the psychological well-being of students (Cotten, 2008). The university’s practitioners should investigate the implications of using the same technologies to communicate with parents to seek their aid in supporting student psychological health and success.

Currently, institutions are using creative technologies, such as wikis, live chat, and portals to support student and parent expectations for increased communication during the first-year of college (Salas & Alexander, 2008). It is especially important to communicate with parents of first-generation students who do not possess the cultural capital gained by parents who had the opportunity to attend a post-secondary institution (Ward et al., 2012; Wolf et al., 2009). Wolf et al. (2009) suggest, “Cultural capital theory assumes that middle and upper-class
families value college education as a means of securing status and privilege” (p. 328) and are willing and able to better assist their students to navigate the higher-education system. Conversely, the parents who lack cultural capital do not have the experience to guide their student

...through the admissions process, experiencing freshman orientation, interacting with faculty, doing college-level work, being self-directed, learning the language and customs of higher education, living with other students, taking finals, navigating the library, making decisions about majors and career pathways, developing help-seeking skills, and so on. (Ward et al., 2012, p. 8)

Administrators must find effective and efficient methods to reach these populations of parents to provide them with the tools and information they need to engage in supporting and encouraging their students (Ward et al., 2012). It has been found that parents like communicating online and gaining information through an online format; therefore, administrators should establish communication channels that meet the parents’ wants and needs (Gruder & Bledsoe, 2011).

Summary

Parents and students interact differently today than in the past. Parents have been given derogatory titles that reflect their high level of involvement in their students’ lives (helicopter parents, blackhawk parents, etc.); however, students have indicated that they indeed want their parents to be involved. Institutions need to be creative in reaching out to parents and communicate the benefits of being supportive and a source of encouragement for their students.

Attachment theory is one theory that may support the need for increased parental involvement in a college student’s life. While other theories may suggest that less parental involvement is best for student development, separation-individuation theory provides support to
this construct. In general, balance between the two extremes has been shown to have positive emotional effects as students move through the various developmental stages during college. Positive parental support at a balanced level was found to significantly predict college academic success, as measured by grade-point average.

Connecting students and their parents to the campus can help to reduce college student departure. Using CRM to improve communications is one way of creating these important connections (Florez-Lopez & Ramon-Jeronimo, 2009; Grayson, 2010; Musico, 2008; Ramaswami, 2007; Sammis & Bailey, 2010; Seeman & O'Hara, 2006; Villano, 2007; Weinberger, 2004). According to Seeman and O'Hara (2006), CRM “is a set of practices that provide a consolidated, integrated view of customers across all business areas to ensure that each customer receives the highest level of service” (p. 24). Retaining students may involve making an effort to meet their wants and needs, and utilizing technology can be an important piece of an integrated retention plan (Bean, 2003; Black, 2001; Braxton et al., 2004; Evans et al., 1998; Kuh et al., 2005; Pascarella & Terenzini, 2005; Tinto, 1993, 1999).

Some CRM tools are multi-faceted and provide users the ability to develop individualized components to meet the institution’s specific goals; one such example includes development of portals for communicating with parents. Parents have indicated that online communication is beneficial due to its asynchronous nature. This communication channel enables parents to communicate and engage when it is convenient to their individual schedules. The higher education industry must become intentional in its interaction with its students’ parents. The student-parent relationship is one that will require continuous observation and adjustment to remain effective and efficient.
CHAPTER III

METHODOLOGY

Introduction

The purpose of this research study was to determine whether a relationship existed between first-time, full-time freshmen retention rates and parental involvement that occurred through the use of an online parent portal. To evaluate whether a relationship existed, this researcher considered archived data that had been collected by the employees in the Office of Student Engagement at The University of Tennessee at Martin. Analysis of the data aimed to answer three primary questions, numbered 1-3, and three secondary questions, lettered a-c:

1. Are freshmen students of parents who have access to, and interact with, The University of Tennessee at Martin’s online Parent Portal retained at a different rate (in greater numbers) than those whose parents do not interact?
   a. Are freshmen students of parents who interact with the online Parent Portal more likely to take advantage of The University of Tennessee at Martin’s student support services?
   b. Are freshmen students of parents who interact with The University of Tennessee at Martin’s online Parent Portal more likely to have a higher first-year grade-point average than the other freshmen students?
   c. Are the parents of freshmen students with greater academic ability, as measured by ACT composite score, more likely to interact with The University of Tennessee at Martin’s online Parent Portal?

2. Are freshmen students of parents who have access to, but do not interact with, The University of Tennessee at Martin’s online Parent Portal retained at a similar rate as those whose parents do not have access?
3. Are freshmen students of parents who do not have access to the online Parent Portal retained at a lower rate than those whose parents have access to, and interact with, The University of Tennessee at Martin’s online Parent Portal?

This chapter will describe the research design and variables that were used in the study, the subjects considered, the instrumentation and procedures followed, and the data analysis that occurred.

Research Design and Variables Analysis

This researcher conducted a quantitative study, which utilized causal-comparative research that attempted to determine if there were patterns of relationships between freshman retention and parental use of an online parent portal. According to Patten (2009), causal-comparative research is conducted when “Researchers look to the past for the cause(s) of a current condition” (p. 9), which aligned with this researcher’s plan. The study used dichotomous variables for both independent and dependent variables (Gliner, Morgan, & Leech, 2009). The study compared three groups of participants who had unknowingly self-selected to which group they were assigned based on parental portal interaction. The independent variables, ‘Status of parental usage 1’ (did access/did not access), ‘Status of parental usage 2’ (no access/did not access), ‘Status of parental usage 3’ (no access/did access), and ‘Degree of usage’ (four usage groups), are categorical. In addition, the dependent variable, ‘Retention status’ (retained/not retained), ‘Whether students accessed support services’ (yes/no), and ‘Status of parental usage 1c’ (did access/did not access) are categorical. This researcher recognized that other variables might affect retention besides accessing the Parent Portal. Accordingly, the study considered two continuous variables in addition to the categorical variables, including students’ end of first-year GPA, and academic ability, as measured by ACT composite score.
This research study made use of both descriptive and inferential statistics. It was understood by this researcher that descriptive statistics can provide useful information; however, they cannot be used to make inferences about the larger population (Gliner et al., 2009). Although non-experimental research studies “rarely provide strong information about cause and effect ...[they] may provide suggestions about related variables…and possible causes” (Gliner et al., 2009, p. 10). Possible causes were analyzed for relationships.

In addition, this research study used the previous data to determine whether a relationship existed between parents’ access to the portal, independent variable ‘Status of parental usage 1’ (did access/did not access) and students’ use of student support resources, dependent variable ‘Whether students accessed support services’ (yes/no). These data came from inquiries made by The University of Tennessee at Martin staff in order to make formative and summative evaluative decisions about the effectiveness of the Parent Portal (Fitzpatrick, Sanders, & Worthen, 2011). Information was collected specifically to determine whether parents shared portal-provided information describing available academic resources with students and whether students took advantage of the resources; resources included items such as the availability of the math lab and the writing center.

In conjunction with the data associated with evaluating the effectiveness of the Parent Portal, student lists of all visitors in the math lab and writing center were reviewed to determine if students attended either the math lab or the writing center during the reviewed academic year. These data were used to support and confirm which students took advantage of the available student academic resources provided by the University. The evaluation data, in juxtaposition with the sign-in sheets were analyzed and compared with the retention data of the randomly selected participants. Analysis was conducted to determine if there was a relationship between
those students who took advantage of the academic resources and those parents who accessed the Parent Portal.

Individual chi-square tests were used to measure and compare each of the three groups of participants to determine if a relationship existed between the dependent categorical variable, ‘Retention status’ (retained/not retained), and the categorical independent variables, ‘Status of parental usage 1’ (did access/did not access), ‘Status of parental usage 2’ (no access/did not access), and ‘Status of parental usage 3’ (no access/did access), research questions 1, 2, and 3, respectively (Field, 2009; Gliner et al., 2009; Patten, 2009; Urdan, 2010). The chi-square test was chosen as the desirable statistic since it detects any differences between the expected results and the actual results amongst the three sampled groups. The second dependent variable, ‘Whether students accessed support services’ (yes/no), is a categorical variable that was compared with each of the three groups of participants using a chi-square test to analyze if a relationship existed between portal usage and support service usage (research sub-question 1a).

Sub-question 1b was tested utilizing a subtype of research known as an analysis of variance (ANOVA) test. This sub question examined whether there was a relationship between the degree of parental usage with the Parent Portal, ‘Degree of usage’ (a categorical independent variable), and end of first-year GPA, ‘First-year GPA’ (a dependent continuous variable). The independent variable data were categorized into the following degrees of usage groupings: no access, none (never accessed Parent Portal), average (accessed Parent Portal 1-5 times), and high (accessed Parent Portal more than 5 times), and were measured for significant differences using the ANOVA test. According to Field (2009), the ANOVA is “a statistical procedure that uses the F-ratio to test the overall fit of a linear model” (p. 781) and is used to test for differences between group means.
The point-biserial correlation test was used to analyze research sub-question 1c, which tested whether there was a relationship between the independent variable, freshman students’ academic ability (as measured by ACT composite score), and the dependent variable, whether parents accessed the Parent Portal. A report provided each student’s ACT composite score. The independent variable considered in this question was continuous, while the dependent variable was dichotomous and categorical, supporting the use of the point-biserial correlation test to determine whether a relationship existed (Field, 2009).

Reliability is measured by the consistency of results received; therefore, it is important for ambiguous questions to be avoided when developing assessment instruments (Patten, 2009). When conducting formative and summative evaluation of the Parent Portal, students and parents were asked clear and concise questions to avoid confusion with their meanings. These data have high validity because the questions asked were relevant to evaluating the usefulness of the Parent Portal, which was directly related to the content of this study (Patten, 2009). In addition to being cognizant of reliability and validity, all requirements for Institutional Review Board (IRB) approval were strictly followed to ensure that ethical standards were maintained when performing human research. Participant data that were analyzed were archival; therefore, informed consent was not necessary for this quantitative study. The randomly selected participants were not contacted while conducting this research study. All data were readily available to this researcher.

Independent variables that were considered in this study included predictors that were compared amongst the sub-divided groups and reviewed for relationships to the dependent variables. The independent variables in this study included ‘Status of parental usage 1’ (did access/did not access) and ‘Degree of usage’ (-1, 0, 5, and 6) of the online Parent Portal, ‘ACT
composite score’, ‘Status of parental usage 2’ (no access/did not access), and ‘Status of parental usage 3’ (no access/did access). The dependent outcome variables included ‘Retention status’ (retained/not retained), ‘Whether students accessed support services’ (yes/no), ‘First-year GPA’ and ‘Status of parental usage 1c’ (did access/did not access). Several possible extraneous variables that were not analyzed as part of this particular study included: gender, family income, first-generation student, academic major, academic advisor, athletic participation, and ethnicity.

The portal provides parents with faculty reports of attendance during weeks one through three of the semester. Parents are also provided alerts of attendance and academic difficulty during weeks six through eight of the semester. Students and parents receive information about career opportunities for students, financial aid and account information, and student-holds received throughout the semester. Mid-term and final grades that are reported by the faculty are available on the online Parent Portal, along with information about free student academic and social support services. Parent surveys are conducted regularly on the Parent Portal to help staff evaluate the portal’s usefulness.

This researcher used a postpositivist/quantitative framework for the purposes of this research study. The postpositivism philosophy suggests that this researcher cannot be positive of the outcome observed since it is a result of human behavior (McMillan & Schumacher, 2010). The research included quantitative data that had already been collected and therefore, did not require further collection techniques to be employed.

Once the study was approved and conducted, the next steps were to collect, organize, categorize, analyze, and summarize the data. The researcher paid special attention to anything that potentially compromised the validity of the data during any of the steps. Some common
areas of which to be cognizant included attrition and any missing data. Participants who were no longer enrolled at the end of the study were assigned to the not retained category. This researcher disclosed in the report when missing data occurred. Data have been displayed in a contingency table format providing the raw data for review.

Additional data provided include expected and observed frequencies. In addition, the alpha value, degrees of freedom, and chi-square critical and chi-square observed values are provided. F-ratios are provided for the sub question that is tested using the analysis of variance statistical measurement. The correlation coefficient, $r$, is reported to two decimal positions, as well as the significance level, $p$, when reporting the findings for the point-biserial correlation. These data have been displayed in table format so that the results can be clearly contrasted amongst the three groups described in the primary questions. Data have also been provided in table format for the secondary questions. For each question, data are presented in table format so that results can be clearly understood. For example, tables display the raw data used for all tests. Effect size and homogeneity were considered when analyzing these data.

Subjects

The participants in this study were the first-time, full-time freshmen who attended summer orientation and registration (SOAR) during the summer of 2012. Each SOAR participant was given the opportunity to voluntarily submit a signed privacy release form. Those students who elected not to sign a release form were not excluded from the study; however, they were placed in a group of their own. The student demographics for all students and average academic profile for entering freshman students at The University of Tennessee at Martin for the fall 2012 are displayed in Table 3.1 (demographics by stratified group can be found in appendix
E). The stratification of all students and the first-time freshmen student enrollments within the various colleges are shown in Table 3.2.

Table 3.1 Undergraduate Student Demographics & Academic Standards at UT Martin

<table>
<thead>
<tr>
<th>Gender</th>
<th>Count</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>3,020</td>
<td>39.0</td>
</tr>
<tr>
<td>Female</td>
<td>4,306</td>
<td>55.6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Count</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>African-American</td>
<td>1,197</td>
<td>16.3</td>
</tr>
<tr>
<td>Asian</td>
<td>37</td>
<td>0.5</td>
</tr>
<tr>
<td>Caucasian</td>
<td>5,682</td>
<td>77.6</td>
</tr>
<tr>
<td>Hispanic</td>
<td>120</td>
<td>1.6</td>
</tr>
<tr>
<td>Other</td>
<td>290</td>
<td>4.0</td>
</tr>
</tbody>
</table>

| Average Freshman ACT  | 22.2  |
| Average Freshmen HS GPA | 3.46  |


Table 3.2 The University of Tennessee at Martin Student Enrollment by College

<table>
<thead>
<tr>
<th>College/Area</th>
<th>All</th>
<th>Percent</th>
<th>FT FR</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture and Applied Sciences</td>
<td>1,068</td>
<td>13.8</td>
<td>209</td>
<td>15.8</td>
</tr>
<tr>
<td>Business and Global Affairs</td>
<td>1,171</td>
<td>15.1</td>
<td>153</td>
<td>11.6</td>
</tr>
<tr>
<td>Education and Behavioral Sciences</td>
<td>3,008</td>
<td>38.8</td>
<td>420</td>
<td>31.8</td>
</tr>
<tr>
<td>Engineering and Natural Sciences</td>
<td>950</td>
<td>12.3</td>
<td>292</td>
<td>22.1</td>
</tr>
<tr>
<td>Humanities and Fine Arts</td>
<td>1,014</td>
<td>13.1</td>
<td>246</td>
<td>18.6</td>
</tr>
</tbody>
</table>


The participants in this study included a stratified random sample of 300, first-time, full-time students taken from the fall 2012 entering class (Gliner et al., 2009). This number
represented approximately 23 percent of the total first-time, full-time freshman population of 1,315 students; internal validity was somewhat high because the sample was randomly selected from archived data. However, since the research study was not an experimental design, this researcher did not assume causality (Gliner et al., 2009). The sample used was randomly generated from SPSS in three groups of 100 students each. The first group included 100 students whose parents logged into the Parent Portal. A second group was formed and included 100 students whose parents had access to log into the Parent Portal, but never did. The last group included 100 students whose parents did not have access to the Parent Portal since the student did not sign a privacy release form. The students’ composite ACT scores were considered as a measure of the student’s academic ability upon entering the university. The degree of parent usage of the Parent Portal was grouped by the number of times the parent accessed the portal.

The results from three samples of 100 students per group were large enough to generalize to the population, while still maintaining statistical power, which also considered estimated effect size, and desired significance level (Gliner et al., 2009). If sample sizes become too large, then trivial outcomes can result (Gliner et al., 2009). In addition, balancing the possibility of making either Type I, alpha (\( \alpha \)), and/or Type II, beta (\( \beta \)), errors are important considerations when making statistical decisions (Gliner et al., 2009). Remaining in control of these statistical challenges resulted in this research project being high in external validity, since the results can be generalized to the population.

A privacy release form was obtained from the willing freshmen students when they attended UT Martin’s summer orientation, advising, and registration (SOAR) program during the summer of 2012. The SOAR program is required of all first-time, full-time students and is generally attended with a parent or guardian. The signed information release form satisfies the
requirements mandated by the Family Educational Rights and Privacy Act (FERPA) for obtaining student permission to disclose academic information to someone other than the student, thereby authorizing the University to share academic information with the people listed on the release form.

The information release form also requests the parents’ email addresses and parents’ birthdates, which were used as part of the CRM communication program that was associated with the online Parent Portal. The Parent Portal was (and is currently) available for all parents whose student provided a signed FERPA privacy release waiver. Parents of freshmen who did not sign a privacy release form during SOAR were informed that they could submit evidence of student dependency to be given access to the Parent Portal as well. Parents of students who did not sign the information release form and who were not dependents were not given access to the online Parent Portal.

Instrumentation and Procedures

The research that was conducted utilized an online Parent Portal, also known as the myUTMartinParent Portal, which is a piece of the CRM system purchased from Hobsons Enrollment Management Technology and customized by The University of Tennessee at Martin. The online Parent Portal enables increased communication between the university and parents. This was an appropriate instrument for the proposed research study since it enabled the researcher to analyze archived parental usage statistics from the online Parent Portal, which was one of the independent variables within the study. Access to technology, such as email and Internet, has become a part of “daily life…in such a way that interaction with technology occurs without conscious effort” (Page & Hill, 2008, pp. 59-60), which confirms that the use of this
instrument was acceptable. In fact, Thomson (2009) indicated that “A French court ruled that Internet access is a basic human right” (p. 4). Research has shown that teachers in higher grade levels reported positive perceptions of the effectiveness associated with the use of electronic communication with parents (Kilgore, 2010, p. 2).

The online Parent Portal had high external validity because it provided adequate representativeness of the accessible population compared to the theoretical population (stratified random selection of population) (Gliner et al., 2009). The information used in the analysis of parental involvement was archival data. The study attempted to determine if there was a relationship between parents’ involvement with the online portal and whether a student was retained at a significantly different rate than was expected by chance alone. Although the instrument used in this study (myUTMartinParent Portal) appeared to track the content needed for this study, this researcher was aware that face validity is a superficial measure that can be misleading (Patten, 2009). Ecological external validity was high since the parent was able to access the online Parent Portal in a natural setting.

Measurement reliability was tested using Cronbach’s alpha, since it only required one administration of the instrument (Gliner et al., 2009). This researcher was cognizant of other confounding variables when interpreting the results of Cronbach’s alpha. Alpha was held to a minimum of .80 as a measure of internal consistency, since only one construct existed (Gliner et al., 2009). The key variables for the primary questions in this research project were categorical and included the dependent variable ‘Retention status’ (retained/not retained) and independent variables ‘Status of parental usage 1’ (did access/did not access), ‘Status of parental usage 2’ (no access/did not access), and ‘Status of parental usage 3’ (no access/did access). The dependent variables for the sub-questions included ‘Whether students accessed support services’ (yes/no),
‘First-year GPA’ (continuous), and ‘Status of parental usage 1c’ (did access/did not access). The independent variables for the sub-questions included ‘Status of parental usage 1’ (did access/did not access), ‘Degree of usage’ (four groups), and ‘ACT composite score’ (continuous).

Data that were collected during each SOAR session, such as parent name, email address, and date of birth, were recorded within the CRM database. Parents were instructed to watch for Parent Portal log in credentials via email just before the beginning of the fall semester. The Parent Portal was designed by The University of Tennessee at Martin to provide parents with information about student financial information, academic resources, and counseling resources, as well as student academic progress information. In order to populate the Parent Portal for each student, faculty were asked to provide feedback throughout the semester on the academic progress of the students in their classes. Specific information was requested from each faculty member. During weeks one through three, faculty were required to submit the name of any student who had not attended the teacher’s course at least one time. During weeks six through eight of each semester faculty members were asked to submit the name of any student who was struggling academically (grade is a D or an F) or who had not been attending class regularly (had missed more than three class periods).

Faculty input given on an ad hoc basis may have greatly enhanced regularly submitted reports. The faculty were provided a link for submitting an alert on an as-needed basis for any student who may be struggling academically or socially throughout any semester. All data submitted by the faculty were recorded in the CRM database and used for populating the online Parent Portal. In addition to alerts submitted by faculty, the Parent Portal displayed each student’s earned mid-term and final grades. An email was generated to parents who had access to the online Parent Portal informing the parent that new information existed on the Parent Portal
about his or her student’s academic performance. Statistical data were collected by the software and were used by the University’s personnel in the Office of Student Engagement to monitor whether parents were accessing the Parent Portal and whether they were receiving and opening any email notifications that were sent.

The University of Tennessee at Martin Student Success Center academic success counselors and the students’ advisors were notified of all alerts so that they were able to contact the students who had received them. The academically at-risk student was encouraged to take advantage of the appropriate student academic resources in an attempt to increase students’ academic success. Examples of academic resources included tutoring, math lab, writing center, and reading center. The online Parent Portal provided parents with information about available academic and social resources that might have helped their student progress academically and socially. Parents were instructed via the Parent Portal, and in some cases by email, of the importance of directing their students to the available resources; however, it was also emphasized that it is critical that the student learn to become independent and autonomous learners as well.

Parent usage of the portal was tracked electronically and recorded within the software database associated with the CRM. Usage was tracked by number of visits to the online Parent Portal web site, as well as the number of links that were followed from the web site by each user. Additionally, data on the average amount of time parents spend logged into the Parent Portal was automatically tracked within the CRM. The recorded usage statistics were analyzed in this research in order to determine if a relationship existed between use of the online Parent Portal and the retention of the corresponding freshman student. Secondary questions considered
archived evaluation documents and sign-in sheets. Additional data contained in the student information system was accessed for GPA and retention statistics.

Randomly selecting participants from the stratified groups helped to improve the reliability of this study. Random assignment of participants using SPSS software reduced the chance for bias in the research. In addition, dropouts from the sample were accounted for using the dependent variable ‘Retention status’ (retained/not retained) and assigning a value of no, one of the two choices for the categorical dependent variable.

Data Analysis

In this study at The University of Tennessee at Martin, three groups of first-time, full-time freshman students who were admitted for the 2012-2013 academic year were compared based upon parental involvement with an online Parent Portal to determine if there was a significant difference in first-year retention rate amongst the three groups. The student groups included two samples of 100 students each who had voluntarily signed privacy release forms and one sample group of 100 students who had not signed privacy release forms.

The first sample group contained the students whose parents had been active or engaged with the Parent Portal, also known as myUTMartinParent Portal. The second group contained students whose parents had access to the Parent Portal but had neither engaged nor been active on the myUTMartinParent Portal. The final group of freshman students did not have privacy waivers on file; therefore, their parents did not have access to the portal. Parental usage was considered active when a parent had logged into the portal, while usage was considered engaged when a parent clicked on at least one hyperlink.
Summary

This research study was conducted to determine whether a relationship existed between first-time, full-time freshmen retention rates and parental involvement that occurs through the use of an online Parent Portal. The researcher evaluated whether a relationship existed by analyzing archived evaluative data collected by the employees in the Office of Student Engagement at The University of Tennessee at Martin. A thorough analysis of the collected archival data was conducted to evaluate the researcher’s questions.

The application of the chi-square test was used to show whether a relationship existed between the three groups that were measuring the categorical variables: ‘Status of parental usage 1’ (did access/did not access), ‘Status of parental usage 2’ (no access/did not access), and ‘Status of parental usage 3’ (no access/did access) to ‘Retention status’ (retained/not retained). A chi-square test was also used to look for a relationship between ‘Status of parental usage 1’ (did access/did not access) and ‘Whether students accessed support services’ (yes/no). An analysis of variance test was used to measure for a relationship between the categorical variable ‘Degree of usage’ (no access, did not access, accessed 1-5 times, or accessed more than 5 times) and the continuous variable ‘First-year GPA’ (continuous). Lastly, a point-biserial correlation test was used to measure whether there was a significant relationship between the continuous variable ‘ACT composite score’ and the dichotomous categorical variable ‘Status of parental usage 1c’ (did access/did not access). The results of all the statistical tests are provided in tables found in Chapter IV of this report.
CHAPTER IV

RESULTS

Findings

This chapter presents the results of this research study, which sought to determine whether there was a relationship between first-time, full-time freshman retention and parents’ use of an online parent portal. Three primary questions were investigated and three sub-questions were also considered in this study. The data were analyzed using SPSS version 21 to conduct chi-square, analysis of variance, and point-biserial correlation tests. The findings from the statistical models are discussed next.

The first research question asked was whether freshmen students of parents who have access to, and interact with, The University of Tennessee at Martin’s online Parent Portal retained at a different rate (in greater proportions) than those whose parents do not interact.

Are freshmen students of parents who have access to, and interact with, The University of Tennessee at Martin’s online Parent Portal retained at a different rate (in greater proportions) than those whose parents do not interact?

In order to determine if there was a significant difference between the proportions of students retained, a chi-square was run, using a 0.05 significance level. The result of the statistical analysis was a $\chi^2 (1) = 2.132$, where $p = .144$, which did not indicate a significant association between the parental interaction with the Parent Portal and the proportion of students retained, hence the research hypothesis is not supported; see Table 4.1. Based on the odds ratio, this appears to represent that there was not a significant likelihood that students of parents who were
interactive with the Parent Portal were more likely to be retained than those whose parents were not interactive with the Parent Portal. Based on the odds ratio, this appears to represent that there was not a significant likelihood that students of parents who were interactive with the Parent Portal were more likely to be retained than those whose parents were not interactive with the Parent Portal.

Table 4.1  Primary Question 1:  Retention Based on Interaction or Not

<table>
<thead>
<tr>
<th>Chi-Square Tests</th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
<th>Exact Sig. (2-sided)</th>
<th>Exact Sig. (1-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>2.132a</td>
<td>1</td>
<td>.144</td>
<td>.194</td>
<td>.097</td>
</tr>
<tr>
<td>Continuity Correctionb</td>
<td>1.684</td>
<td>1</td>
<td>.194</td>
<td>.194</td>
<td>.097</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>2.141</td>
<td>1</td>
<td>.143</td>
<td>.194</td>
<td>.097</td>
</tr>
<tr>
<td>Fisher's Exact Test</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>200</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 25.50.
b. Computed only for a 2x2 table

Research question 1a explored whether freshmen students of parents who interact with the online Parent Portal were more likely to take advantage of The University of Tennessee at Martin’s student support services.

Are freshmen students of parents who interact with the online Parent Portal more likely to take advantage of The University of Tennessee at Martin’s student support services?

A chi-square was run, with statistical analysis results of $\chi^2 (1) = .231$, where $p = .631$, which when measuring for a $p < .05$ level of significance indicated that no significant association between parental interaction with the Parent Portal and the likelihood of students taking advantage of the available student support services. Using a 0.05 significance level, there is not enough evidence to conclude that UTM students whose parents interact with the Parent Portal are
more likely to take advantage of student support services. Therefore, the research hypothesis is not supported, see Table 4.2.

Table 4.2 Sub-Question 1a: Student Support Services

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
<th>Exact Sig. (2-sided)</th>
<th>Exact Sig. (1-sided)</th>
<th>Point Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>.231a</td>
<td>1</td>
<td>.631</td>
<td>.749</td>
<td>.374</td>
<td></td>
</tr>
<tr>
<td>Continuity</td>
<td>.103</td>
<td>1</td>
<td>.749</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>.231</td>
<td>1</td>
<td>.631</td>
<td>.749</td>
<td>.374</td>
<td></td>
</tr>
<tr>
<td>Fisher's Exact Test</td>
<td>.231</td>
<td>1</td>
<td>.631</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>.230c</td>
<td>1</td>
<td>.632</td>
<td>.749</td>
<td>.374</td>
<td>.114</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>200</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 26.50.
b. Computed only for a 2x2 table
c. The standardized statistic is .479.

Research question 1b was intended to reveal whether freshmen students of parents who interact with the online Parent Portal are more likely to have a higher end of first-year grade-point average than the other freshmen students.

Are freshmen students of parents who interact with The University of Tennessee at Martin’s online Parent Portal more likely to have a higher first-year grade-point average than the other freshmen students?

There was a significant difference, at the 0.05 level, between grade-point average based on Parent Portal usage, $F(3, 296) = 5.13$, where $p = .002$, see Table 4.3.
The analysis of variance (ANOVA) statistical model shows whether there is a difference between the means of each of the tested variables, -1, 0, 1, and 6; see Table 4.4. The numbers -1, 0, 1, and 6 represent no access to the portal, access but never logged into the portal, logged into the portal 1-5 times, and logged into the portal more than 5 times, respectively. Although the ANOVA cannot provide specific information about which variables are affected, it can show whether there was an effect in general.

Table 4.4 Cumulative GPA Descriptives

<table>
<thead>
<tr>
<th>Cumulative GPA</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
<th>95% Confidence Interval for Mean</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower Bound</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Upper Bound</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-1</td>
<td>100</td>
<td>2.2736</td>
<td>1.12634</td>
<td>.11263</td>
<td>2.0501</td>
<td>2.4971</td>
<td>.00</td>
</tr>
<tr>
<td>0</td>
<td>100</td>
<td>2.4431</td>
<td>1.02752</td>
<td>.10275</td>
<td>2.2392</td>
<td>2.6470</td>
<td>.00</td>
</tr>
<tr>
<td>1</td>
<td>69</td>
<td>2.8717</td>
<td>.70038</td>
<td>.08432</td>
<td>2.7035</td>
<td>3.0400</td>
<td>.13</td>
</tr>
<tr>
<td>6</td>
<td>31</td>
<td>2.5406</td>
<td>.92424</td>
<td>.16600</td>
<td>2.2016</td>
<td>2.8797</td>
<td>.70</td>
</tr>
<tr>
<td>Total</td>
<td>300</td>
<td>2.4953</td>
<td>1.00854</td>
<td>.05823</td>
<td>2.3807</td>
<td>2.6099</td>
<td>.00</td>
</tr>
</tbody>
</table>
As shown in Table 4.5, there was a significant difference between the means of variable -1 (no access) and variable 1 (logged in 1-5 times), variable 0 (had access but never logged into the Parent Portal) and variable 1 (logged in 1-5 times), and variable 1 (logged in 1-5 times) and both variable -1 (no access) and variable 0 (had access but never logged into the Parent Portal). Using Tukey’s test for multiple comparisons, information about the dependent variable, cumulative GPA, as it relates to the independent variable, the frequency in which parents logged into the Parent Portal were compared. The frequency in which parents logged into the Parent Portal revealed a significant relationship with the end of the first year cumulative grade-point average when considering $p$ values < 0.05 to be statistically significant.

Table 4.5  Sub-Question 1b: Tukey Comparisons

<table>
<thead>
<tr>
<th>Tukey HSD</th>
<th>Mean Difference (I-J)</th>
<th>Std. Error</th>
<th>Sig.</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower Bound</td>
</tr>
<tr>
<td>0 1</td>
<td>-1</td>
<td>-.16950</td>
<td>.13976</td>
<td>.619</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>-.59814</td>
<td>.15467</td>
<td>.001</td>
</tr>
<tr>
<td>6</td>
<td>-1</td>
<td>-.26705</td>
<td>.20316</td>
<td>.554</td>
</tr>
<tr>
<td>0 1</td>
<td>1</td>
<td>.16950</td>
<td>.13976</td>
<td>.619</td>
</tr>
<tr>
<td>Tukey HSD</td>
<td>-1</td>
<td>-.42864</td>
<td>.15467</td>
<td>.030</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>-.09755</td>
<td>.20316</td>
<td>.963</td>
</tr>
<tr>
<td>6</td>
<td>-1</td>
<td>.59814</td>
<td>.15467</td>
<td>.001</td>
</tr>
<tr>
<td>1 0</td>
<td></td>
<td>.42864</td>
<td>.15467</td>
<td>.030</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>.33109</td>
<td>.21368</td>
<td>.409</td>
</tr>
<tr>
<td></td>
<td>-1</td>
<td>.26705</td>
<td>.20316</td>
<td>.554</td>
</tr>
<tr>
<td>6 0</td>
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<td>.09755</td>
<td>.20316</td>
<td>.963</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>-.33109</td>
<td>.21368</td>
<td>.409</td>
</tr>
</tbody>
</table>

*. The mean difference is significant at the 0.05 level.
There was a significant difference between the grade-point averages of students whose parents had no access (no signed FERPA release form) and those who accessed 1-5 times. Also, significant differences were shown between students whose parents had access (but did not access) to the Parent Portal and those whose parents logged into the Parent Portal between 1-5 times. Finally, the grade-point averages of students of parents who logged in more than 5 times were not significantly different from the grade-point average of any of the other students in the study, see Table 4.6.

Table 4.6  Average End-of-Year GPA by Parent Access Group

<table>
<thead>
<tr>
<th>Access Group</th>
<th>GPA</th>
<th>% Retained</th>
</tr>
</thead>
<tbody>
<tr>
<td>No access given</td>
<td>2.27</td>
<td>64.0</td>
</tr>
<tr>
<td>Accessed 0 times</td>
<td>2.44</td>
<td>70.0</td>
</tr>
<tr>
<td>Accessed 1-5 times</td>
<td>2.87</td>
<td>78.3</td>
</tr>
<tr>
<td>Accessed &gt; 5 times</td>
<td>2.54</td>
<td>80.6</td>
</tr>
</tbody>
</table>

Note. GPA = grade-point average by access group.

Research question 1c examined whether parents of freshmen students with greater academic ability, as measured by ACT composite score, are more likely to interact with The University of Tennessee at Martin’s online Parent Portal.

Are the parents of freshmen students with greater academic ability, as measured by ACT composite score, more likely to interact with The University of Tennessee at Martin’s online Parent Portal?

There was not a significant relationship between the students with greater academic ability, as measured by ACT composite score and the likelihood of parents to interact with the Parent Portal, \( r_{pb} = 0.06, p = 0.202 > 0.05 \); see Table 4.7.
Research question 2 investigated whether freshmen students of parents who have access to, but do not interact with, The University of Tennessee at Martin’s online Parent Portal retained at a similar rate as those whose parents do not have access.

Are freshmen students of parents who have access to, but do not interact with, The University of Tennessee at Martin’s online Parent Portal retained at a similar rate as those whose parents do not have access?

It was shown through the use of a chi-square test, $\chi^2 (1) = .814$ and $p = 0.367 > 0.05$ that there was no significant difference found between the proportion of students retained when a parent who had access to, but did not interact with, the Parent Portal and the proportion of students retained when a parent did not have access to the Parent Portal; see Table 4.8.

<table>
<thead>
<tr>
<th>Correlations</th>
<th>ACT_subscore_composite</th>
<th>Active</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACT_subscore_composite</td>
<td>Pearson Correlation</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sig. (1-tailed)</td>
<td>.202</td>
</tr>
<tr>
<td></td>
<td>Sum of Squares and Cross-products</td>
<td>2664.761</td>
</tr>
<tr>
<td></td>
<td>Covariance</td>
<td>13.596</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>197</td>
</tr>
<tr>
<td></td>
<td>Pearson Correlation</td>
<td>.060</td>
</tr>
<tr>
<td></td>
<td>Sig. (1-tailed)</td>
<td>.202</td>
</tr>
<tr>
<td></td>
<td>Sum of Squares and Cross-products</td>
<td>21.660</td>
</tr>
<tr>
<td></td>
<td>Covariance</td>
<td>.111</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>197</td>
</tr>
</tbody>
</table>
Table 4.8  Primary Question 2: No Access and Had Access

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
<th>Exact Sig. (2-sided)</th>
<th>Exact Sig. (1-sided)</th>
<th>Point Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>.814&lt;sup&gt;a&lt;/sup&gt;</td>
<td>1</td>
<td>.367</td>
<td>.452</td>
<td>.226</td>
<td></td>
</tr>
<tr>
<td>Continuity Correction</td>
<td>.565</td>
<td>1</td>
<td>.452</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>.815</td>
<td>1</td>
<td>.367</td>
<td>.452</td>
<td>.226</td>
<td></td>
</tr>
<tr>
<td>Fisher's Exact Test</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>.810&lt;sup&gt;c&lt;/sup&gt;</td>
<td>1</td>
<td>.368</td>
<td>.452</td>
<td>.226</td>
<td>.080</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>200</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 33.00.
b. Computed only for a 2x2 table
c. The standardized statistic is .900.

Research question 3 examined whether freshmen students of parents who do not have access to (no signed FERPA form) the online Parent Portal retained at a lower rate than those whose parents have access to (signed FERPA form), and interact with, The University of Tennessee at Martin’s online Parent Portal.

Are freshmen students of parents who do not have access to the online Parent Portal retained at a lower rate than those whose parents have access to, and interact with, The University of Tennessee at Martin’s online Parent Portal?

Using 0.05 significance level, there was a significant difference revealed between the proportion of students retained when a parent did not have access to the Parent Portal and the number of students retained whose parents interacted with the Parent Portal, $\chi^2 (1) = 5.521$ and $p = .019$; see Table 4.9. It was also found that the correlation coefficient, Phi, was .166, which represents a small to moderate effect size.
Table 4.9 Primary Question 3: Interacted Compared to No Access

Chi-Square Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
<th>Exact Sig. (2-sided)</th>
<th>Exact Sig. (1-sided)</th>
<th>Point Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>5.521a</td>
<td>1</td>
<td>.019</td>
<td>.028</td>
<td>.014</td>
<td></td>
</tr>
<tr>
<td>Continuity Correctionb</td>
<td>4.809</td>
<td>1</td>
<td>.028</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>5.571</td>
<td>1</td>
<td>.018</td>
<td>.028</td>
<td>.014</td>
<td></td>
</tr>
<tr>
<td>Fisher’s Exact Test</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Linear-by-Linear</td>
<td>5.493c</td>
<td>1</td>
<td>.019</td>
<td>.028</td>
<td>.014</td>
<td>.008</td>
</tr>
<tr>
<td>Association</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>200</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 28.50.
b. Computed only for a 2x2 table
c. The standardized statistic is 2.344.

Summary

The results of this research study, which sought to determine whether there was a relationship between first-time, full-time freshman retention, and parents’ use of an online parent portal are presented in this chapter. Three primary questions were investigated and three sub-questions were also considered in this study. The data were analyzed using SPSS version 21 to conduct chi-square, analysis of variance, and point-biserial correlation tests. Question 1 did not reveal any significant difference between those students whose parents interacted with the Parent Portal and the proportion of students retained. Question 1a explored whether students took advantage of support services at a higher rate when their parents accessed the Parent Portal; there was no significant relationship found.

The results of research question 1b showed a significant difference between the average usage of the Parent Portal and the end of student first year grade-point average; specifically, a difference existed between parents who had no access to the portal and those parents who logged
in between 1-5 times. Tukey comparisons show the mean difference was .59814 with a .15467 standard error, previously displayed in Table 4.5. A significant difference was also found between the means of those parents who had access but never logged into the Parent Portal, and those parents who logged in between 1-5 times. Tukey comparisons show the mean difference was .42864 with a .15467 standard error, previously displayed in Table 4.5. Finally, as previously displayed in Table 4.6, the end-of-year GPA for the students of parents who accessed the Parent Portal between 1-5 times, resulted in an average GPA of 2.87, compared to the GPA of 2.27 for those whose parents had no access. An average GPA of 2.44 was found for students whose parents had access but never accessed the Parent Portal. The last population, students of parents who accessed the Parent Portal more than five times, had an average end-of-year GPA of 2.54.

Question 1c sought to answer the question of whether parents of students with greater academic ability, as measured by ACT score, were more likely to interact with the Parent Portal; there was not a significant correlation found. In addition, question 2 revealed no significant difference between the retention of students whose parents had no access to the Parent Portal and the retention of students whose parents had access but did not take advantage of use. The results of question 3 indicated that there was a significant difference when comparing the proportion of students retained when a parent did not have access (no signed FERPA form) to the Parent Portal to the proportion of students retained when a parent had accessed the Parent Portal. The results and possible implications of these tests are discussed further in chapter V of this report.
CHAPTER V
SUMMARY, DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

Summary

This research was conducted to study whether a relationship existed between first-time, full-time freshman retention and the use of an online parent portal. Tennessee data reported from the years 2006-2008 show that only 22 percent of Tennessee citizens, over the age of 25, have earned a bachelor’s degree or higher (NCES, 2010). Tennessee governor, Bill Haslam, has encouraged the leaders of institutions of higher education in Tennessee to change this statistic. He “has challenged our state with a critical new mission: the Drive to 55” ("Drive to 55--Mission: Workforce ready," 2014, para. 1). Governor Haslam has shared his goal of bringing “the percentage of Tennesseans with college degrees or certifications to 55% by the year 2025” (para. 2).

As a result of this challenge, and the corresponding funding changes associated with the Complete College Tennessee Act of 2010 (THEC, 2011), The University of Tennessee at Martin has proactively sought innovative initiatives to address the need to improve retention, progression, and graduation rates. One such intervention that has been implemented is the development of an online Parent Portal. The Parent Portal was designed to intentionally encourage parental involvement during a student’s first-year transition from the high school environment to the university environment. Parents can provide students with a familiar support system while they learn to navigate the unfamiliar territory of college.
This chapter includes a review of the methodology used in this study, and then follows with a discussion of the correlations revealed amongst the freshman student, parent, and university, and corresponding retention rates. In addition, discussion is provided in regard to the use of student academic support services, end of first-year grade-point average, and academic ability in relationship to the use of the online Parent Portal. Finally, as a result of this research, recommendations for further research are provided which could postulate further insight and clarity to the relationships that exist between freshman student retention and parental involvement with a university provided parent-portal.

Review of the Results and Discussion

Three primary research questions, along with three secondary questions were, explored during this study. The first research question tested for a relationship between freshmen students of parents who interacted with the online Parent Portal and the rate at which those students were retained. This hypothesis was not supported by the data; no correlation was shown between freshman retention and accessing the Parent Portal. Many of the freshman students at The University of Tennessee at Martin were first-generation (parents had not attended college), which may suggest that these freshmen did not have parents who understood the rigor of attending a 4-year institution. It is not surprising in this case that accessing the online Parent Portal was not significantly correlated to an increased retention rate. It is possible that the parents who have never attended an institution of higher education were not aware of how to effectively use the information on the Parent Portal to assist their student in navigating the unfamiliar landscape of college. Parents may need more guidance from the University leaders in how to best utilize the information that is provided to them on the portal.
The first secondary question was to test for a relationship between freshmen students of parents who interacted with the online Parent Portal and the likelihood whether students took advantage of academic support services. Again, the data did not show a significant difference between those who interacted and those who did not and whether the students utilized support services; therefore, a relationship could not be presumed. One interpretation of this finding is that the information about the free academic support services provided on the online Parent Portal was not adequate to result in parents encouraging student usage. However, it is possible that the parents were not aware of the benefits that could result from their student taking advantage of the academic support services. Additionally, since a large percentage of UT Martin students were first-generation students, they may not have had the benefit of parents who recognized the importance of seeking academic assistance early in a student’s academic career.

Encouraging students to seek help early and often can be an important driver in academic success (Pascarella & Terenzini, 2005). Improving parental awareness of the importance of encouraging student use of academic support services could prove to be an effective way to increase student usage of available academic support services. It is unclear whether parental influence is enough to motivate a student to seek academic help, but what is clear is that administrators at UT Martin wish to develop a partnership with parents. Partnering intentionally with parents may augment student success, which may help to improve retention.

Secondary question number two was to test whether the number of times a parent interacted with the online Parent Portal was related to the student’s end of first-year grade-point average (GPA). The data revealed a significant difference between the mean end-of-year GPAs of the following groups of freshman students:
• The students of parents who did not have access to the portal and those who logged into the portal between one and five times. The mean difference in GPAs was .598 with a .155 standard error.

• The students of parents who had access to the portal, but never logged in, compared to the students of parents who logged in between one and five times. The mean difference in GPAs was .429 with a .155 standard error.

However, the data did not reveal a significant difference between the mean end-of-year GPAs of the following groups of freshman students:

• The students of parents who had no access to the portal compared to the students whose parents had access, but never logged into the portal. The mean difference in GPAs was .170 with a .140 standard error.

• The students of parents who had no access to the portal compared to the students whose parents logged in more than five times. The mean difference in GPAs was .267 with a .203 standard error.

• The students of parents who had access, but never logged in, compared to the students whose parents logged in more than five times. The mean difference in GPAs was .098 with a .203 standard error.

• The students of parents who logged in between one and five times compared to the students whose parents logged in more than five times. The mean difference in GPAs was -.331 with a .214 standard error.

The practical implications of these findings suggest that parental involvement is important; however, the level of involvement is what correlates with student academic success, when measured by end of first-year GPA. Providing access to the online Parent Portal is not enough by itself to produce significantly different outcomes in terms of end-of-year grade-point average. The number of times a parent accessed the online Parent Portal was shown to relate to the end-of-year grade-point average. Figure 5.1 displays the average GPA for each group in the study; the information is separated based on the number of times the parent accessed the Parent Portal.
Figure 5.1 Average End-of-Year GPA by Parent Access Group. Reflects a possible point of diminishing returns for parental involvement.

Using the portal to monitor a student’s progress might have a positive effect on the student’s academic success and progression toward a degree. The end of first-year GPA was highest for students whose parents accessed the portal between one and five times. The data also revealed a lower GPA was associated with Parent Portal access in excess of five times. It might be useful for university administrators to counterbalance these findings by providing parents with opportunities to be involved, but pair the parental opportunities with student experiences that allow the student to become self-sufficient and independent.

These results are not surprising, since research has shown that a lack of clear boundaries between the parent and the student can have a negative impact on a student’s ability to adjust and
mature; therefore, balanced interaction between student and parent is important (Daniel et al., 2001). Kenny (1994) and Marcus (2010) both conducted research that revealed that excessive parental contact may hinder the college student’s growth and maturity; these data potentially support this supposition. The research findings documented in this study are supported by the conclusions of many other researchers whose data have revealed that balanced involvement in a student’s life is key to student adjustment (Agliata & Renk, 2008; Bryan & Simmons, 2009; Carney-Hall, 2008; Daniel et al., 2001; Gerdes, 2004; Han & Dong, n.d.; Hoover, 2008; Kanat-Maymon & Assor, 2010; Lipka, 2007; Somers & Settle, 2010; White, 2005). Taub (2008) states, “It appears that healthy attachment to parents can support students’ development of social and interpersonal competence...while excessive support from parents can inhibit development of competence” (p. 18). Additionally, the research of Cutrona et al. (1994) supports this study’s findings; they found that “Parental support...significantly predicted [college] grade-point average” (p. 369). It should be noted that there appears to be a point of diminishing returns as it relates to the students’ end of first year grade point average and the level of parental involvement.

Secondary research question number three tested for a relationship between the incoming freshman student’s academic ability, as measured by ACT composite score and whether his/her parents were more likely to interact with the online Parent Portal. The data did not reveal a significant difference; this is important because it could have represented a limitation to the study if parents of high-achieving students had been more involved than those of lesser-prepared students, in the first place. In other words, these data suggest that a higher academic ability is not necessarily of significant relation to the likelihood of the parent using the online Parent Portal.
It is useful to know that a student’s academic ability was not correlated with whether a parent accessed the Parent Portal to aid in effectively targeting parent communications. These findings may also help to defend against the claim of skewed results based on other research that shows that students with higher ACT scores are generally retained at higher rates (Pascarella & Terenzini, 2005). It appears that the students’ academic abilities are not related to whether their parents are accessing the Parent Portal, thereby decreasing the chance that ACT score is a confounding variable in testing for correlations between freshman retention and Parent Portal usage.

The second primary question tested for a relationship between the retention rate of students whose parents had access to, but never interacted with, the online Parent Portal—compared to the retention rate of those students whose parents did not have access at all. There was no significant difference revealed by the data related to this question. These findings suggest that the relationship between student retention and whether parents lack access to their student’s information, or they intentionally chose not to access the information, resulted in similar retention rates. These data seem to suggest that the cause for the lack of parental involvement does not result in a change in whether it is correlated to retention.

These data may be beneficial to decision-makers who are responsible for implementing programs to improve retention of first-year students. Steps must be taken to find what will interest parents and encourage them to engage in activities that are targeted toward promoting student success. Parent satisfaction surveys and focus groups could help the leaders at the University determine what parents are missing on the Parent Portal; this information can be useful in evaluating existing programs. In addition, it can help to ensure that administrators are
not over-predicting future student success based solely upon the number of parents who initially show an interest in an implemented initiative such as the Parent Portal.

Finally, primary research question number three examined whether the retention rate of students whose parents did not have access to the online Parent Portal (no FERPA release form signed) was lower than the retention rate of those students whose parents interacted with the online Parent Portal. The data revealed that there was a significant difference between these two groups: a greater proportion of students were retained in the group whose parents accessed the Parent Portal than those who did not. These findings are consistent with the research conducted by Tinto (1993), which revealed that students experience a time of anxiety and need an adjustment period as they transition from high school to college. Parents who are involved with their student during the first year of college can provide support as the freshman student navigates through the adjustment period. The parents can also provide a sense of familiarity that can aid in reducing the student’s anxiety during the time of transition.

Tinto (1993) indicated that without the proper amount of support, students may “flounder and withdraw without having made a serious attempt to adjust to the life of the college” (p. 47). Kalsner and Pistole (2003) discovered similar results in that healthy parent-child attachment provides students with a safety net when experiencing the changes associated with attending the university. The findings of this study did not show a correlation to retention between the two groups of students whose parents interacted or did not—having both obtained signed FERPA release forms. Similarly, no correlation was shown between the two groups whose parents had not interacted, whether by choice or by inability to access the Parent Portal. However, the data in this study did reveal that freshman students whose parents had obtained a signed FERPA release form and took the time to be involved in their student’s academic life via the Parent Portal were
correlated to a higher retention rate than those students whose parents did not, thereby displaying no intention to be involved, see Table 5.1.

Table 5.1 Correlation of Portal Access and Retention

<table>
<thead>
<tr>
<th>Interacted with Parent Portal (obtained signed FERPA release form)</th>
<th>Did not interact with Parent Portal (obtained signed FERPA release form)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No correlation shown</td>
<td>No correlation shown</td>
</tr>
<tr>
<td>Did not interact with Parent Portal (obtained signed FERPA release form)</td>
<td>Did not have access to the Parent Portal (did not obtain signed FERPA release form)</td>
</tr>
<tr>
<td>No correlation shown</td>
<td></td>
</tr>
<tr>
<td>Interacted with Parent Portal (obtained signed FERPA release form)</td>
<td>Did not have access to the Parent Portal (did not obtain signed FERPA release form)</td>
</tr>
<tr>
<td>Correlation shown</td>
<td></td>
</tr>
</tbody>
</table>

The need for balance within the parent-student attachment appears to be supported. Daniel et al. (2001) research suggests that the most successful students have parents who view their children as adults, rather than becoming overly involved in their students’ college lives. While the appropriate balance for each student will differ, the need for healthy attachments appears to be clearly related to freshman student retention rates.

Directions for Practice and Future Research

The University of Tennessee at Martin has proactively sought to implement programs that intentionally engage parents. There was a difference revealed in the proportion of students retained when comparing students of parents who accessed the Parent Portal to those who did not. There was also a significant difference in GPAs between students whose parents accessed the portal between one and five times compared to the GPA of students whose parents accessed
more than five times. A relationship was shown to exist between retention rates and improved student academic outcomes and Parent Portal usage; therefore, it is recommended that further research be conducted to identify programs that intentionally engage parents in appropriately balanced ways. Programs that encourage *over-involvement*, which may differ for each student, of parents were not shown to improve student retention and academic success, and it is recommended that they be avoided. Parent engagement initiatives can be developed once the parents’ needs and wants are better understood. It is recommended that future research be conducted to determine how to effectively engage freshman parents in ways that have a positive effect on retention and student success.

The data from this study did not reveal a significant relationship between parental interaction with the online Parent Portal and how often a student took advantage of academic support services; therefore, the online Parent Portal might not be an effective medium for increasing student awareness of the University’s free academic support services. It did, however, show a correlation with higher GPAs. The GPAs increased to a maximum level before they began to decline once again. This correlation should be studied further to determine where the point of diminishing returns occurs as it relates to parental involvement. In addition, further study to determine whether the point of diminishing returns coincides with events such as homecoming, mid-term grading, financial aid awarding, and other significant campus events would be helpful.

Other communication channels, such as hard-copy letters, email, and parent newsletters, might prove to be more effective and should be considered in the future. Additional research is recommended to determine what is the most effective communication channel for the parents of incoming freshman. Once an appropriate communication channel is chosen, then the chosen
channel can be utilized to help educate parents about the importance of encouraging their
students to take advantage of the University’s free academic support services.

Finally, it is recommended that further research be conducted to determine whether a
significant relationship exists between freshmen retention and parental involvement based on
factors such as gender, ethnicity, parental education level, family income level, and geographic
location (see appendix E for demographic statistics). Research to determine whether there is a
relationship between retention rates and any of these variables, while taking into account the
University’s current communication channels and the current methods of engaging parents, could
provide insight into how the University should differentiate its retention plan to be the most
effective. This study did not consider these variables when testing for significant relationships.

It is important that decision-makers who are seeking to improve freshman retention rates
investigate whether the University’s current channels of communication affect these populations
differently. Addressing parents’ wants and needs might make them an even more powerful
resource in improving retention and student success.

Pascarella and Terenzini (2005) suggest, “Students enter a college or university with a
variety of patterns of personal, family, and academic characteristics and skills, including initial
dispositions and intentions with respect to college attendance and personal goals” (p. 54).
Studying the pre-entry attributes—family background, skills and abilities, and prior schooling—
of the entering freshmen students might provide a better understanding of the students’ intentions
and commitment toward earning a degree (Pascarella & Terenzini, 2005; Tinto, 1993).

Determining if there is a correlation between the students’ pre-entry attributes, interaction with
the external community, and the institutional experiences might provide university
administrators a window into how they might address both academic and social integration, and ultimately attrition.

Students’ characteristics such as gender, ethnicity, parents’ level of education, family income level, and the geographic location may all affect the students’ expectations of the university. Parents may treat sons and daughters differently when it comes to involvement. Cultural differences may exist between the different ethnicities. First generation students’ parents may be unaware of the best ways to support their student in the unfamiliar college environment. Students of low-income families may find it necessary to work in order to afford the expense of college; does working hinder college success? Finally, the geographic location the student is coming from may play a role in how prepared the student is for college. Some locations may not have Internet access, while others do. International and out-of-state students may struggle with different regional customs, possibly causing a barrier to student success.

Until further research is conducted to determine what relationship each of the above plays in student retention and success, university officials are only guessing at how to most effectively intervene on each student’s behalf. Identifying what is perceived as an appropriate balance of parent involvement can help to determine what programs should be developed to accommodate the needs of the university’s constituents. Once student populations are divided into groups based on the additional research findings, the most effective communication medium can be established for each group. The use of social media, email, snail mail, and parent portals may all be useful communication channels for reaching out to parents, but data-informed decisions are pending further investigation.
REFERENCES


APPENDIX A

IRB APPROVAL—UT MARTIN
December 12, 2013

Ms. Brandy Cartmell
Student Records
CAMPUS MAIL

RE: 14-205/Cart.Bra
IRB Period: 12/12/2013 to 12/11/2014
The Relationship Between Freshman Student Retention and Use of an Online Parent Portal

Dear Ms. Cartmell:

The project listed above has been reviewed and has been certified as EXEMPT from full review under Exempt Category D.

The responsibilities of the investigator(s) are to abide by the regulations governing research involving human participants, including those provisions specifying the means of obtaining informed consent. In all cases, the standards of respect for persons, beneficence, and justice enumerated by the Ethical Principles and Guidelines for the Protection of Human Subjects of Research (Belmont Report) apply to all research involving human participants conducted at UT Martin. Please note that you are also committed to the other Investigator Responsibilities as stated in the Faculty, Staff and Student Handbook for Studies Involving Human Participants found on our website.

All exempt approved research is subject to UTM-IRB review, at least once a year. Please visit our website for the Change/Termination Form that you will need to complete and submit if your project remains active and UTM-IRB Approval needs to be renewed for another year. Such a request must be done within the last 30 days of the IRB approval period indicated above. Unless your research moves in a new direction or participants have experienced adverse reactions, then renewal is not a major hurdle. You as Principal Investigator are responsible for determining whether the changes will affect the current status of the project. When you complete your research, the same Change/Termination Form will need to be submitted indicating completion of the project. This will allow the UT Martin IRB Compliance Section to close your project files.

Please remember that it is the responsibility of the Principal Investigator to keep the data that is collected in a secure location for 3 years after the completion of the research project.

We wish you success in your research endeavors.

Richard Griffin, Ph.D.
UT Martin IRB Chair

pqf
APPENDIX B

IRB APPROVAL—UT CHATTANOOGA
MEMORANDUM

TO: Brandy Cartmell  
   Dr. David Rausch  

FROM: Lindsay Pardue, Director of Research Integrity  
       Dr. Bart Weathington, IRB Committee Chair  

DATE: March 20, 2014  

SUBJECT: IRB #14-062: The Relationships Between Freshman Student Retention and Use of an Online Parent Portal  

The IRB Committee Chair has reviewed and approved your application and assigned you the IRB number listed above. You must include the following approval statement on research materials seen by participants and used in research reports:

The Institutional Review Board of the University of Tennessee at Chattanooga (FWA00004149) has approved this research project #14-062.

Please remember that you must complete a Certification for Changes, Annual Review, or Project Termination/Completion Form when the project is completed or provide an annual report if the project takes over one year to complete. The IRB Committee will make every effort to remind you prior to your anniversary date; however, it is your responsibility to ensure that this additional step is satisfied.

Please remember to contact the IRB Committee immediately and submit a new project proposal for review if significant changes occur in your research design or in any instruments used in conducting the study. You should also contact the IRB Committee immediately if you encounter any adverse effects during your project that pose a risk to your subjects.

For any additional information, please consult our web page http://www.utc.edu/irb or email instrb@utc.edu

Best wishes for a successful research project.
APPENDIX C

FERPA RELEASE FORM
Student Information Release Form

Student Name: ___________ Student I.D. Number: ___________

I do hereby consent to the release of my UT Martin records outlined below to the following individual(s):

Release to: _______________________________ Release to: _______________________________

Relationship: ______________________________ Relationship: _______________________________

Email: ______________________________ Email: ______________________________


Records from the following areas may be released:

- **Academic Records**: Information will be released on the UTMartinParent Portal. (No information will be released by phone.)
- **Financial Aid/Scholarships**: Status of student financial aid. (No amounts will be given by phone)
- **Skyhawk Card Office**: (expenditures and a history of activity on the Skyhawk Card).
- **Business Affairs**: (NOTE: Billing information requires a secret three-digit code. Please print a **three-digit** secret code THAT YOU WILL REMEMBER here ___________.
      If you forget your code, you will have to change it in writing at the Business Office.)

This release will remain in effect until revoked in writing at the Office of Academic Records.

Student Signature: ___________ Date: ___________

* Form must be notarized before the student signature can be considered valid.

**Return the signed form to:**
The University of Tennessee at Martin
The Office of Academic Records
103 Administration Building
Martin, Tennessee 38238

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APPENDIX D

UT MARTIN PARENT PORTAL SCREEN SHOTS
Chase's Academic Information

Attendance Report
Summer

Chase's Attendance Week 1:

There are no attendance alerts for Chase at this time.

Research has shown that attendance is critically important to a student's academic success. It is good that Chase has been attending all of his courses.

Chase's Summer 2013 Course Information
(Some courses may have been dropped. Also, please note that mid-term grades are not assessed in Summer terms due to the short span of time.)

<table>
<thead>
<tr>
<th>CRN</th>
<th>Subject</th>
<th>Course Number</th>
<th>Section</th>
<th>Final Grade</th>
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Financial Aid and Scholarships

Events shown in time zone: Central Time

Chase's Holds

Holds on a student's record can have different results. Some holds are informational only, while some others can affect registration, financial aid, etc. It is very important that students understand which holds they have, if any, and what the consequences of the hold might be.

The student must contact the appropriate department(s) in order to have the hold(s) removed.

Chase has the following holds, if any:

Intended Date of Graduation: This affects Chase being able to register for classes, receiving his transcripts and receiving his grades. Please have him contact (731) 881-7059 for more information on how to remove this hold.

UT Martin News

Three UT Martin students from WUTM 90.3 FM win AP College Broadcast Awards

UT Martin Calendar

Events shown in time zone: Central Time
Chase’s Major

UT Martin offers baccalaureate degree programs in more than a hundred specialized fields. Master’s degrees are offered in business administration, educational leadership, counseling, teacher education, agriculture and natural resources systems management, and family and consumer sciences.

Bachelor of Arts: Communications

Public Relations Sequence (2416)

The Public Relations sequence prepares students for a number of different careers in corporate, organizational, or advertising/P.R. agency communications. As spokespersons, information officers, press secretaries and organizational communications specialists, public relations practitioners manage communications with many constituent publics.

Does this sound like the perfect concentration for Chase?

For more information, click here: Department of Communications

To view the full catalog description, click here: UT Martin Catalog

Chase’s Employment Opportunities

Did you know that since Chase is graduating from UT Martin that there are several employment opportunities available to him? To find out more click on the link below:

Future Employment Opportunities

Does Chase need a job now? If so, check out our student employment opportunities by clicking the link below:

Student Employment Opportunities

Does Chase know what types of jobs he has available to him with a UT Martin degree? If not, check out our employment opportunities by clicking the link below:

Career Employment and Placement Services

Student Advisor Information

UT Martin values the crucial role that faculty play in establishing high academic standards. Individualizing instruction, engaging in scholarship, personalizing advising and stimulating both creative and analytical thinking.

The Division of Academic Affairs coordinates programs and services related to academic advising and learning assistance. Professors who are assigned as advisors provide academic counseling. Besides the many kinds of assistance provided by academic departments and individual faculty and staff members, UT Martin offers coordinated learning support through the Student Success Center.

Chase’s Advisor is:

General Advisor Communications

305 Gooch
731-881-7551
manney@utm.edu
Our Student Success Center is here to help Chase work toward becoming a successful UT Martin student. We provide resources to help him overcome the academic challenges he may be facing at this point. Chase can stop by the Center or call us at 731-308-1493. For more information, visit the website by clicking the link below.

Success

Research Paper: Lab Reports: Thesis Essays! Your student doesn’t know where to start? Encourage Chase to visit the Horsman Parish Writing Center in Humanities 209 for assistance in any of his writing needs. While the Writing Center doesn’t write or proofread the written projects, they are happy to provide support in understanding formats, proper citations, plagiarism, and many other aspects of Chase’s writing. Students who visit the Writing Center can develop a stronger writing style. The Writing Center is open Mon - Thurs: 8 a.m. to 5 p.m. and Fri: 8 a.m. to 4 p.m. For more information, visit the link below.

Horsman Parish Writing Center

Other student success resource links:

Math Lab
Reading Center
Student Testing
Supplemental Instruction

Links of Interest

Sal Khan Learns from Bill Gates Article

Student Consumer Information
Student Safety Information
Testing Services
Disability Services
APPENDIX E

ADDITIONAL DEMOGRAPHICS BY STRATIFIED SAMPLE
Demographics by Stratified Sample

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<th>Caucasian</th>
<th>Other</th>
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<td>Students</td>
<td>Percent</td>
<td>Students</td>
<td>Percent</td>
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Group 1: Accessed Parent Portal
Group 2: Had Access But Did Not Access
Group 3: Had No Access
VITA

Brandy Mallory Cartmell was born in Traverse City, Michigan, to her parents, Aubree St. Thomas and Eddie Alfred Mallory. She is the eldest of four children, one brother and two half sisters. Brandy attended Northwest High School in Jackson, Michigan. Upon graduation in 1981, she attended Central Michigan University, which is located in Mt. Pleasant, Michigan. After completing one semester, she transferred to Jackson Community College located in Jackson, Michigan, where she studied data processing. Brandy earned an Applied Arts and Science degree in 1984. After working in the restaurant management industry for two years, she decided to pursue a Bachelor of Arts degree in management of human resources from Spring Arbor College. Brandy completed the Bachelor of Arts degree in 1988.

In 1988, Brandy moved to Tennessee with her husband, Kevin Cartmell, where they raised two children, Megan and Chase. She worked in the banking industry until 1996 before joining the staff at the University of Tennessee at Martin. Brandy earned her Master of Business Administration from the University of Tennessee in Martin, Tennessee, in 1998 and she earned a Post-Master’s Certificate in enrollment management from Capella University in 2011. Also in 2011, Brandy began her doctorate work at the University of Tennessee at Chattanooga. She plans to complete her Educational Doctorate degree in Learning and Leadership in December 2014.