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The Relationship Between Perception of Academic Support Services and Persistence and Integration of Undeclared Students

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THE RELATIONSHIP BETWEEN
PERCEPTION OF ACADEMIC SUPPORT SERVICES AND
PERSISTENCE AND INTEGRATION OF UNDECLARED STUDENTS

A Dissertation

Submitted to the School of Graduate Studies and Research

in Partial Fulfillment of the

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Doctor of Education

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Improving retention remains a major objective of institutions of higher education. Retaining at-risk students has proved particularly challenging and increasingly important because often these students are members of underrepresented populations, such as first generation and minority students, among others. Undeclared students may be at increased risk of early departure from college because they may not have the advantages of frequent formal and informal faculty contact that declared students often have, experiences which have been identified as crucial to feelings of belonging, persistence, and retention. Using the theoretical framework developed by retention researchers as well as current literature on retention, support services, and at-risk and undeclared students, the author studied the relationship between tutoring, advising and counseling, and persistence of undeclared second-semester freshmen at a public university in the Northeast. In addition, students' perception of feeling like they belong was also considered. The author found no significant difference in reported persistence, perception of support services, or sense of belonging between undeclared and declared student samples. Future research tracking actual usage of support services and persistence of undeclared students may shed further light on factors that contribute to persistence and sense of belonging of at-risk populations.

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CHAPTER 1

INTRODUCTION

This dissertation is a report of a study that compares two groups of students to determine the effects of support services on improving student persistence. One group will be comprised of students who have declared a major, and the other group will consist of students who have not declared a major. Various methods were used to measure the frequency of support service usage as well as to reveal student attitudes toward using the services over the course of two semesters at a public university in the Northeastern United States. The study was undertaken to determine the impact of using academic support services on social and academic integration and persistence among these two groups of students. This first chapter provides the background, states the problem, describes its significance, and outlines the methodology used in the study. The chapter concludes with a discussion of the limitations and delimitations of the study and definitions of terms used in the study.

Background

Student retention at colleges and universities continues to be a hot-button issue among administrators, faculty, politicians, parents, and students especially as state education budgets shrink. As a result, according to the Pennsylvania Governor's Conference on Higher Education (2009), financial support for institutions of higher education decreases while demands for accountability and addressing diverse student needs increase. At the same time, according to Hoyt (1999), the demand for proof of effectiveness placed upon faculty and staff by administrators who are worried about attrition and loss of revenue often creates tension at these institutions that can result in

competing factions of student services, which in turn works against the strategic goal of retaining students. While many studies demonstrate how specific strategies affect retention, research also supports the effectiveness of integration of support services and cooperation among various campus constituencies as a vital component of increased retention (Hoyt, 1999).

There are several definitions of *retention* rates, which are not to be confused with *persistence* and *graduation* rates.

- Retention may measure the rate at which students re-enroll from spring semester to the following fall, or the rate at which first-time freshmen re-enroll, or the rate at which full-time students return (Turner & Berry, 2000).
- Persistence, on the other hand, is often defined as a short-term measure of semester-to-semester re-enrollment (Turner & Berry, 2000).
- Both retention and persistence rates contribute to an institution's graduation rate, which measures the rate at which students complete their degrees during a five- or six-year period, the average time span most students need to do so (Turner & Berry, 2000). However, persistence does not necessarily result in retention until graduation.

For the purposes of this study, the term *persistence* is used to refer to semester-to-semester enrollment and, unless otherwise indicated, *retention* is used in the general sense to refer to students staying at the university from academic year to academic year. Finally, all of these measures are used in some capacity by administrators at colleges and universities to examine their relative success or failure in encouraging students to remain at their institutions until completing their degrees. Indeed, retention and/or graduation

rates are often included in college selection guides and are considered an important measure of effectiveness by prospective students and their parents (Tinto, 2006).

With so much at stake in terms of not only keeping students but also attracting students in the first place, it is understandable that increasing retention is a major objective at many colleges and universities. Retention research began in the 1970s when Vincent Tinto (1975) wrote extensively about why students left college. His model of student attrition was further examined and developed by Pascarella and Terenzini (2005), among many others, and research continues to the present day. While the research has shown that some of the reasons students leave college are inexorable and cannot be addressed solely by changing college policy (finances, family circumstances, health issues, etc.), many factors that contribute to retention, such as feeling academically and socially connected to the institution, can be engendered with programs and initiatives that influence students to stay. These include student support programs such as tutoring, counseling, and advising.

If research can establish a significant link between students' utilization of these support services and feeling bonded to the university, the ultimate impact on retention may be powerful, yet remains virtually untapped. Aside from the obvious assumption that tutoring, for example, will probably improve or at the very least maintain grades and study habits and thus influence a student to persist, the idea that tutoring could help create a social, emotional and academic bond between the student and the university is more novel and has not been widely explored. Indeed, in general, much of the research on tutoring and other support services focuses on academic factors affecting persistence and retention, rather than on the factors creating a "feeling of belonging."

The implications for improving retention by utilizing the idea that support services can enhance students' feeling that they belong at the university are formidable. For example, support services faculty and staff may develop and incorporate models of social and academic integration into their tutoring, advising, and counseling training programs that emphasize establishing personal connections with students early in the first semester of the freshman year. Thus, college personnel may be empowered to some degree with the ability to directly impact retention by first ensuring that these services are high quality and easily accessible to students. Next, the services must be integrated across academic divisions and incorporated into an all-encompassing, campus-wide retention plan since retention initiatives work best when they are embraced fully by the entire campus community (Hoyt, 1999).

A college or university that develops a retention strategy often targets a segment of the student population and focuses on their particular needs in order to influence them to stay at the institution. Often, these students are considered *at-risk* or *high risk* for dropping out. Traditionally, underprepared students, minority students, financially disadvantaged students, disabled students, and first generation college students, among other groups, are classified as at-risk (Hoyt, 1999). However, sometimes the category of at-risk student is unique to the particular geographical or demographic characteristics of the institution. For example, a rural community college may target its farm worker students as at-risk because of attrition during planting and/or calving season and may develop a retention strategy to address their specific needs.

Undeclared Students

Another example of assigning *at risk* status to a group of students relative to the circumstances at a particular institution involves the undeclared population. The researcher conducted this study at a public university in the Northeastern United States. At this particular university, as of spring semester 2008, the number of undeclared students was 419 among the total student population of 5,563. Further, among the total freshman population of 1,335 students, 239 were undeclared (Office of Academic and Institutional Effectiveness, 2009). While not officially labeled “at-risk,” there is concern about the inordinately large population of undeclared students at the university and the possibility that they are more likely to leave the institution before graduating.

Undeclared students may become discouraged more easily because they lack regular contact with a departmental advisor who can discuss fields of interest within a major or career opportunities available upon graduation. In addition, these students may be less likely to bond with faculty members or experience a mentoring relationship with a faculty member. Tinto (1993) and others (Braxton, 2000; Harper & Quaye, 2009; Kuh, Kinzie, Schuh, Whitt, & Associates, 2005; Lau, 2003; Pascarella & Terenzini, 2005; Seidman, 2005) found that students who do not feel a sense of belonging with an institution, often fostered by a strong bond with one or more faculty members, are more likely to leave.

At this particular institution, another barrier that prevents many students from officially declaring their major is having a Grade Point Average (GPA) that is deemed too low for acceptance into a particular departmental major. For example, the College of Education requires students to have a GPA of 3.2 in order to be admitted as education majors. Thus, some candidates for this major end up remaining undeclared until junior

year, some even beyond that, because they have difficulty reaching and/or maintaining the required GPA. Some end up transferring or dropping out when they realize they are unable to raise their GPAs to the required level. Similar GPA requirements for acceptance into the major have been enacted in other departments, such as Business Management and Speech Pathology.

In recognizing the peril of losing a substantial segment of its student population, the administration responded by designating a full-time advisor to meet with these students every semester to help them design their schedules and to guide them toward choosing a major, or in some cases, an alternative major to their first choice. The designated advisor for undeclared students at this institution meets with undeclared students every semester during mandatory one-on-one sessions not only to select courses but also to establish a relationship with or connection between the advisor and the undeclared student. This is desirable since undeclared students do not enjoy the advantage of having an advisor to consult with in their chosen field of study as the declared students do. It should also be noted that undeclared students, as well as declared students, are *required* to visit their advisor at least once per semester in order to receive their personal identification number (PIN) number for registration while the other support services, namely tutoring and counseling, are accessed primarily on a voluntary basis.

During these sessions, in addition to encouraging students to visit various departments and the career center as they search for a field of interest, the undeclared advisor encourages all students to utilize other campus support services, such as tutoring and counseling, regardless of their academic standing. The close proximity of the advisor's office to the tutoring center and counselors' offices, coupled with the

collegiality among support services staff members, facilitates the delivery of support services to the undeclared students. Cross-referrals among the various offices are common.

Some members of the undeclared population also participate in opportunity programs available at the university, such as the newly-created Students in Transition to Academic Realization (STAR) Program, a university-funded program that replaced the state-funded Act 101 program and the Student Support Services (SSS) program, which is part of the federal TRIO grant. TRIO consists of eight student services programs that provide outreach to individuals from disadvantaged backgrounds beginning in middle school and extending to post-graduate studies. Both STAR and SSS targeted academically at-risk students and provided them with priority access to tutoring, intrusive advising, and peer and professional academic and personal counseling services. Undeclared students who participated in these programs had access to an advisor to assist them with career exploration and registration for classes until they declare a major.

Additionally, undeclared students who take the First Year Experience course (the course was established to serve undeclared freshmen on a first-come-first-serve basis—there are not enough sections to accommodate all undeclared freshmen) are advisees of the instructor who teaches their section until the students declare a major. Thus, in any given semester, portions of the undeclared population have access to at least five designated faculty members for advisement until they declare a major.

As previously described, effective retention programs target at-risk populations, integrate various support services, and have staff members work cooperatively to assist students. The university used in the study has focused on the undeclared population and

offers the necessary integration of services. The available support services are comprehensive and of high quality and contribute to the academic integration of undeclared students. In this study, the researcher hoped to demonstrate that these integrated support services work to improve the persistence of undeclared students and help students feel more connected to the university. Once a link between support services and feeling connected to the university is established, faculty and staff may capitalize on the benefits of “bonding” with students by adapting their training programs, policies, and procedures to promote making personal connections early in the semester of the freshman year, and maintaining them throughout the students’ college experience resulting in higher rates of retention for undeclared students and ultimately other high-risk groups as well.

Themes in the Literature

The value of support services, such as tutoring, advising, and counseling in retaining underprepared students at community and four-year colleges has been well-documented. For example, Dale (1995) reports that, at Purdue University, participants in a comprehensive support program overwhelmingly cited tutoring as the most important component in the assistance package. Also, SMB Economic Research (1997) reports that the Student Support Services arm of the federally funded TRIO program cites tutoring as an essential element of retention as well as raising GPAs at five model programs at several universities country-wide. Furthermore, Commander and Valeri-Gold (2003) find that the specific advice most often given to freshmen by upper-classmen at an urban community college, as demonstrated in a letter writing assignment, was to seek tutoring services.

In addition to tutoring, counseling services, specifically academic counseling services, had a more direct impact on retention and graduation rates than psychological and career counseling for those students who expressed concerns about dropping out, failing, or transferring (Sharkin, 2004). Additionally, Coll and Stewart (2002) found that at-risk students participating in an academic program in which faculty referred them to academic counseling at the first sign of trouble experienced significantly higher levels of social and academic integration than non-participants. According to the researchers, the students had more faculty contact and consequently perceived that the faculty cared about their well-being, resulting in increased retention.

Heisserer and Parette (2002) report that advising is an important component in retention generally and for at-risk students in particular, including those who are undeclared. In their report on a number of studies assessing advising methods and their effect on retention, an integrated approach combining prescriptive (advisor-driven decision-making) and developmental (shared decision-making between advisor and student) elements proved most effective for the at-risk populations. A study conducted at North Carolina A&T State University further illustrates the importance of effective advising in addressing the particular needs of at-risk students. Students in academic peril who sought assistance from faculty advisors rated the quality of assistance as ineffective (Addus, Chen, & Khan, 2007). The authors suggest the results of the study indicate that at-risk students do not benefit from routine faculty advising; instead, they propose that at-risk students experience higher GPAs and improved retention when they are monitored and advised separately from university-wide advising programs. The idea of using discrete advising (advising that addresses the needs of a specific student population, such

as the undeclared), rather than general advising by a faculty member, correlates with the premise of the study at hand, which posits that seeking tutoring, counseling, and advising will improve retention of undeclared second-semester freshmen.

Research Problem

Undeclared freshmen are at greater risk of leaving college, and this may be in part because they do not have a departmental advisor to assist them in developing an academic plan, choosing courses, or providing general guidance to smooth the transition to college. In addition, undeclared students may miss out on opportunities to connect with a faculty member from a specific major on a regular basis and thus may take longer to, or may never, achieve social or academic integration to the same degree as students who have declared a major.

Purpose of the Research

The purpose of the study was two-fold: First, to examine the relationship of obtaining support services, such as tutoring, advising and counseling, and the persistence of second-semester undeclared freshmen who are academically at risk at a public, four-year university in the Northeastern United States. Secondly, the study compared the declared and undeclared students' rates of persistence as well as their usage of support services.

Research Questions

The study asked the following questions:

1. Do undeclared second-semester freshmen with low GPAs who use support services persist at higher rates than those who do not?

2. Do undeclared students generally feel less of a connection with the university than declared students?
3. Do undeclared students utilize support services less frequently than declared students?

Proposed Research Methodology

This study employed a mixed methodology using both quantitative and qualitative data collection. Data were collected at the end of the second semester from all undeclared second-semester freshmen with a GPA of between 1.5 and 1.9 (qualifying them for academic warning and/or probation status) to determine if they have:

- Applied for tutoring/attended tutoring sessions;
- Met with the advisor for undeclared students; and,
- Met with a counselor.

(Note: This subgroup is part of a population that is identified at the end of each fall semester by the advisor for students in academic jeopardy. They are tracked during the subsequent semester as part of ongoing academic monitoring.) During the same period of time, data were collected from a random, stratified sample of the same number of declared, second-semester freshmen with a GPA between 1.5 and 1.9 to determine if they have:

- Applied for tutoring/attended tutoring sessions;
- Met with their advisor in their major; and,
- Met with a counselor.

Data were collected from a survey distributed to a purposively selected sample (based on their frequency of use of support services) of 25 undeclared freshmen near the

end of their second semester to determine their attitudes about the support services they may have used, specifically in regard to whether using the services influenced their intention to return to the university the following semester. Additionally, a purposive selection of 25 declared, second semester freshmen were given the same survey to determine their attitude toward support services and the effect of those services, if any, on their intention to return the following semester.

Finally, a purposive sample (based on survey responses) of surveyed undeclared students were interviewed regarding their use of support services, such as tutoring, advising and counseling, and if using these services helped them feel connected to the university. Interviews were also held with a purposive sample of surveyed declared students to determine if using the services affected their feelings of connection to the university.

Significance of the Study

The study was significant because it added to the literature that examines the relationship between accessing support services and persistence of at-risk students. Retention is a very important issue at the university because of the relatively large number of undeclared students who are at risk of leaving or dropping out due to lack of guidance, not making a personal connection, and absence of academic integration. Also, the study will provide further evidence of the importance of support services to overall retention of both at-risk and not at-risk students (Tinto, 1993; Pascarella & Terenzini, 2005) regardless of GPA or academic standing. Finally, the study will seek to uncover a link between using support services and feeling connected to the university so that faculty and staff may adapt their training programs, policies, and procedures to make personal

connections with students early in the semester of freshman year and maintain them throughout the students' college career.

Definition of Terms

Advising. For the purposes of this study, “advising undeclared students” refers to the academic assistance and advice provided by an advisor for undeclared students in choosing appropriate courses to satisfy general education requirements, while “advising declared students” refers to the academic assistance provided by the faculty advisor in the major regarding the courses and GPA requirements to satisfy the major.

At-risk students. Various factors and circumstances account for labeling students “at-risk.” Studies vary somewhat in their descriptions of what constitutes an at-risk student, but generally the following conditions, among others, are accepted as increasing the likelihood of student attrition:

- being a first-generation college student; that is, being the son or daughter of parents neither of whom attained a bachelor's degree;
- being a minority student;
- working full-time;
- being undeclared;
- placement in three or more remedial classes; and,
- living at home while attending college (Hoyt, 1999).

Counseling. For the purposes of this study, counseling refers to the general academic, financial, personal, career or social guidance, encouragement, assistance and support provided to declared and undeclared students by the academic counselor for Student Support Services, which is part of the federal TRIO grant.

Graduation rate. The rate at which students successfully complete their degree work within a five to six year period (Turner & Berry, 2000).

Persistence. The rate at which students re-enroll from semester-to-semester (Turner & Berry, 2000). It can be viewed as a short-term measure of retention.

Retention. Institutions vary in their definitions, but generally refers to the rate at which students re-enroll from spring to fall semester. It can also refer to the rate at which students re-enroll from fall to the following fall (Turner & Berry, 2000).

Tutoring. A support service that pairs a student who seeks better understanding of a content area with another student or professional (possessing a bachelor's degree or higher) tutor who has had more experience with or success in mastering the content area. Goals of tutoring include helping tutees to improve their grasp of concepts and achieve higher grades. Tutoring may involve one-on-one contact or may be conducted within a small group (Topping, 1996).

Undeclared students. Students who enroll as first-time freshmen or re-enroll thereafter without declaring a major.

Delimitations

1. The study was confined to a population at one public university in the Northeast region of the United States.
2. The sample size of the study limited the ability to generalize to other universities.
3. The data were collected over the course of one semester and does not accurately predict longer-term trends.

4. The issue of large numbers of undeclared majors at this particular university does not generalize to other universities.

Limitations

1. The study considered but was not directly focused on race, gender, or age in assessing the impact of tutoring, advising, and counseling on persistence.
2. Reasons for student attrition during the course of the study were not be explored; therefore, it is not known whether students who left the college did so for financial or personal reasons, or to transfer to another institution, or if they left because they perceived the support services offered were insufficient or ineffective.
3. The qualitative data collection contained validity threats, such as the Hawthorne Effect (Mayo, 1933).

Assumptions

The following assumptions were made:

1. The university strives to decrease the risk of attrition of all students as well as the number of undeclared students by the time students reach their junior year.
2. Undeclared students are at higher risk of attrition than declared students.
3. Both declared and undeclared students are aware of the availability of support services, such as tutoring, advising, and counseling.

Summary

In light of recent fiscal crises among states all over the nation, public colleges and universities are focusing more than ever on strategies for retaining students. Retention models were developed as far back as the 1970s and today many, if not most, institutions

dedicate substantial amounts of financial and human resources to determine which students stay and why others leave. Nonetheless, recent data show that retention rates countrywide continue to drop despite all of these efforts. To help stem the tide of attrition, in addition to focusing on retention among the general student population, colleges are also looking at specific groups of students, often labeled “at-risk,” and are employing strategies aimed at encouraging these students to stay. Research has shown that there are a number of factors that contribute to attrition among the at-risk population, such as being a member of a minority group, being the first in one’s family to attend college, and placement into remedial courses, among others.

Another factor that has been associated with a student being at-risk is not having declared a major. These students may be more likely to drop out of college for several reasons: they have not found a field of study that sparks their interest or inspires them to persist; they do not have a mentor or advisor in a field of study to help them choose courses, deal with setbacks, answer questions, or help them feel like they belong at the college. At the public university at which this study took place, the undeclared population was relatively large and was an area of concern for the administration, not only in terms of retention statistics, but also because of the “trap” many of these students fall into. They remain undeclared because, semester after semester, they continue to fall short of the GPA requirements for acceptance into a particular department.

It has been postulated by Tinto (2006) and others that support services, such as tutoring, advising and counseling, can help students feel more connected to the institution socially and academically and thus positively impact retention. Further, researchers have proposed ways to customize and enhance these strategies to better meet the needs of at-

risk populations, such as first generation and minority students. This study will focus on a group of at-risk students specific to a university in the Northeast, that is, those who have not declared a major, to examine the effects of the support services on their persistence and the implications for additional strategies to address their specific needs.

CHAPTER 2

REVIEW OF THE LITERATURE

Introduction

The purpose of this study was to determine the effect of obtaining support services such as tutoring, advising, and counseling on the persistence of second-semester undeclared freshmen at a public, four-year university in the Northeastern United States. In addition to their undeclared status, the students in the study also have attained a GPA of between 1.5 and 1.9, placing them on *academic warning* or *probation*, which means they are at increased risk of academic suspension or dismissal.

This problem was assessed by gathering and analyzing both qualitative and quantitative data at the university during the course of a semester. Two groups of students with similar GPAs, one group consisting of students who have declared a major and one group consisting of students who are undeclared, were compared to examine the relationship between using support services and retention on both the declared and undeclared group. The undeclared group, in addition to being at higher risk for attrition due to low GPA, may be considered doubly at-risk due to their undeclared status. Thus, examining the impact of using support services on their persistence contributes to the existing literature because it may reiterate the importance of support services on the most vulnerable student populations as well as provide further evidence of a link between using support services and feeling more connected to the university.

Synthesis of the Literature--Criteria for Selecting the Literature

The literature selected for review included books, journal articles, reports, papers, and presentations written by professionals in the field of higher education. Many of the authors were experts in developmental education, support services, at-risk populations, and retention research, and had conducted both qualitative and quantitative research studies which demonstrated the importance of using support services to increase persistence, retention, and academic success.

Themes in the Literature--Context of the Problem

There are a number of aspects that warrant consideration in assessing the value of support programs as a component of overall student retention strategies and as a means of retaining undeclared students in particular. First, survival in a highly competitive market has intensified the challenges faced by colleges and universities in attracting and retaining students, especially in light of recent increased publicity about the increasingly high attrition rates at state and private colleges and universities (Cuseo, 2005). Secondly, as institutions, particularly state institutions, seek to attract a more diverse student body, support services have come to play a more integral role in retention strategies. Many students from urban or rural high schools are labeled "under-prepared" and have been perceived as less academically engaged and much more focused on the practical aspects of attaining a college degree than students of earlier generations (Kuh, 1999). Thus, strong, ongoing institutional support of auxiliary services such as tutoring, advising, and counseling has become accepted as a vital tool in the institution's retention arsenal.

The problem of studying retention of undeclared students is a complex one. First of all, not all researchers agree that undeclared students are necessarily at-risk for attrition. For example, Cuseo (2005) reports that a review of the research on retention shows that students' undeclared status had little effect on their retention and he postulates that the "myth" of the undeclared students' increased risk of attrition stems from a pejorative view of the very term "undeclared," that it brings to mind students who lack direction and thus motivation. The real problem with attrition, he claims, is not with those students who take several semesters to explore major field options, but instead lies with those students who remain undeclared for a prolonged period.

On the other hand, another study compared persistence rates between a group of students who had chosen to major in business, engineering, education, health, or arts and sciences, and a group of students who had not declared a major. Leppel (2001) finds that both male and female students who were undeclared (or "undecided") were significantly less likely to persist than those who had chosen a major and thus recommends that undeclared students receive tutoring and counseling to help them persist. Thus, both arguments regarding the at-risk nature of undeclared students can be supported by research, but, as shown below, the particular characteristics of the university used in this study, indicate that its undeclared population is more at-risk for attrition than its declared counterpart.

A study by Makinen, Olkinoura, and Lonka (2004) conducted at a Finnish university cites *study orientation* as a predictor of attrition. Most of the students with a *general study orientation* have no clear idea of why they are in college or what their academic or career goals are, thus putting them at risk of failing or dropping out. In other

words, in Finland they are labeled “non-committed” students—what we would refer to in the U.S. as undeclared. According to the study, which surveyed both committed and non-committed students, non-committed students drop out of college at higher rates for a number of reasons, including the fact that they do not immediately become part of a close-knit community of learning as do law or medical students. Thus, the non-committed students begin to flounder from the beginning of their academic careers and have a more difficult time finding meaning and purpose in their studies.

Finally, it is important to understand the implications of being an undeclared student at the state university at which this study was undertaken since it may or may not reflect the policies and strategies implemented by other institutions. According to data collected by the University’s Office of Academic and Institutional Effectiveness (Spring, 2009), in the fall of 2004, a relatively large proportion of the student population (553 students, or 10.2% of the total student population) was made up of undeclared students. Although in 2004 the retention rate after the first year of college was slightly higher for undeclared students than for the entire university population (79.4% as opposed to 78.5%). The retention rate after *two* years of college for undeclared students dropped more sharply than the rate for the entire university population (university-wide retention between the first and second year dropped 9.9%; undeclared retention during the same period dropped 14.2%). This trend of a more significant drop in retention after two years of college among undeclared students became even more dramatic in 2006, when university-wide retention dropped 13.7% between the first and second year but plummeted to 19.7% among the undeclared population. Thus, one interpretation of the data suggested that initiating an early intervention program for at-risk students (at the

start of the second semester of freshman year) may prove a key factor in stemming the tide of attrition at the end of the second year. Since advising, tutoring, and counseling relationships have become well established by that time, the undeclared students may be more inclined to persist because they feel a stronger connection to the university.

Therefore, considering the large number of undeclared students and their markedly greater risk of attrition after two years at the university, the problem of developing strategies to engage and retain these students is critical to the continued growth of the institution and to its commitment to serve a diverse student population. It also follows, then, that encouraging students to avail themselves of support services as soon as they land in academic jeopardy, that is, after their first semester of their freshman year, will help stem the tide of attrition after the second year. In addition, the researcher believed that if the study demonstrated utilizing existing university support services such as tutoring, advising, and counseling they would positively impact retention of undeclared students. These services would only need to be refined or marketed in a slightly different way to encourage undeclared students to avail themselves of the services more frequently. Then there would be no need to invent or invest in new programs or techniques.

Current Understanding of the Problem

Tutoring, advising, and counseling, often grouped under the umbrella of academic support services, have been linked to academic success and retention in many studies, notably by Kuh, Cruce, Shoup, Kinzie, and Gonyea (2008), Kuh, Kinzie, Buckley, Bridges, and Hayek (2007), and Kuh, Kinzie, Schuh, Whitt, and Associates (2005), who examined best practices for promoting student engagement and found that one of the keys

to student persistence is providing effective comprehensive programs such as tutoring, intrusive advising, and mentoring (requiring students to attend mandatory advising or mentoring sessions at regular intervals throughout the semester), among other services. Habley (2004, 2009) identified and measured the top 95 retention practices at public, four-year universities and among those, ranked tutoring and advising among the highest rated retention intervention practices. Summers (2003), in his review of the literature regarding student attrition at community colleges, cites several studies that found students who partook of tutoring and counseling services persisted to a greater degree than students who did not. Retention experts, such as Tinto (1993, 1997) and Pascarella and Terenzini (2005), as well as research conducted at the Center for the Study of Higher Education at the Pennsylvania State University (Reason, Evensen, & Heller, 2009) and the Pennsylvania Governor's Conference on Higher Education (2009), consistently cite support networks that include tutoring, advising, and counseling services as vital components of best practices in a comprehensive retention program.

Although the overall benefits of support services on student success and retention are well-documented, there has been far less research conducted on the effects the services have on the undeclared population. Therefore, for the purposes of this literature review, the research concerning "at-risk" students included undeclared students.

In one study, Toder and Hartsough (1993) reported that undeclared students who were targeted to receive academic support that included counseling had higher GPAs at the end of spring semester and felt "bonded" to the university. The researchers developed an orientation program for undeclared students that included weekly meetings of students with their peers, social, educational and cultural events, and periodic meetings

with a trained graduate-student counselor over the course of the semester. The results of a Likert-scaled self-report survey administered at the end of the semester indicated greater feelings of belonging among participants than among non-participants. In addition, participants had a significantly higher rate of re-enrollment (94%) as compared to non-participants (84%) the following school year. Since cultivating the sense of belonging is considered a crucial step in retention, this study focused on the role academic support services played in the process of bonding between the undeclared student and the university.

Review of Previous Research, Findings, and Opinions--

Theoretical Literature

Tinto's theory of departure. A crucial question arises when assessing the impact on retention of using support services (tutoring, advising, and counseling) by undeclared, second-semester freshmen at a public university: Does utilization of these services contribute to higher retention rates by helping these students feel more connected to the institution? This question spans both the cognitive and affective domains.

According to Braxton (2000), the rate of student departure, surprisingly, has hovered at around 45% for more than a century. Researchers have been studying student attrition since the 1920s. However, Vincent Tinto was the first to create a theoretical model to help explain this phenomenon. According to Tinto (1993), the origins of the theoretical framework for most retention studies is rooted in psychology—past researchers attributed specific individual student traits or behaviors to college departure. Others stressed sociological factors, such as peer attitudes and institutional environment, as major factors contributing to attrition. More recently, researchers such as Astin assert

that both the students and the institution play equally vital roles in determining whether he or she decides to stay (Pascarella & Terenzini, 2005).

In addressing the issue of support services as a means of creating a sense of connection or belonging between the student and the institution, it is necessary to refer to the work of Vincent Tinto, who, beginning in the 1970s, has conducted extensive research on the causes of student attrition and is widely considered a retention expert. Tinto's *Theory of Institutional Departure* (1993) is divided into two main systems, the Academic and the Social. The academic domain refers to the experiences the student has in the classroom and laboratories as well as interactions with the faculty. The social domain refers to the experiences the student has in the dorms and the cafeteria, with peers and during social interactions. The domains often overlap, such as when students interact with faculty outside of the classroom or when peers meet to study together. Furthermore, the prevalence of one domain over the other is often implicit in the individual campus culture. For example, an institution popularly known as a “party school” may tacitly value social integration over academic and vice-versa.

In the category of institutional experiences that occur early on in the student's college career, peer group interactions (along with faculty/staff interactions) are crucial in determining whether a student will persist. In other words, students who leave college do so because they feel isolated both academically and socially to some degree. In fact, Tinto likens student departure from college to Durkheim's theory of suicide: instead of an individual committing suicide because he is not integrated into society as a whole, student attrition occurs "when a student is insufficiently integrated into the social and academic systems of college" (as quoted in Nordquist, 1993). Further, although the

academic integration of students is highly important, social integration is also crucial in determining whether students persist (Nordquist, 1993).

Involvement theory and Tinto's attrition model. Another important concept found in the literature is *involvement theory*, based on research conducted by Astin in 1984. Involvement theory postulates that the more time and energy students invest in their college experience, such as studying and doing homework, the more cognitive and affective benefits they reap (Astin, 1993). Astin used the Freudian notion of *cathexis*, which is the psychological investment of energy in objects and people outside of oneself, and combined it with the learning theory concept of “time on task” to develop his theory of involvement (1999). In this way, Astin straddles both sociological and psychological concepts to explain student capacity for change in college. The theory stresses student responsibility for initiating involvement, but the institution also bears some burden by providing ample opportunities for students to become involved on intellectual and social levels.

Opp (1993) used involvement theory as the framework for a study that showed that increased investment of student time in academic pursuits had a positive effect on completion rates of students of color. Thus, the more academic interactions that students of color have, such as participating in tutoring, advising, and counseling, regardless of whether the participants are members of the same minority, the more likely it is that students will feel engaged and will complete their programs of study. Involvement theory is closely related to Tinto's longitudinal model of student attrition which theorizes that academic and social isolation and incongruence early on in the college experience are the chief reasons why students leave college (Tinto, 1993).

Overall, the literature supports the notion that academic and social integration are essential factors in persistence of students. Further, the literature emphasizes the importance of student access to effective support services during the critical first semester of the freshman year. For example, as part of a comprehensive retention plan, Braxton and Hirschy (in Seidman, 2005) recommend that institutions establish proactive outreach programs that target at-risk students during the beginning of the fall semester using tutors, peer mentors, counselors, and advisors. Bean (2005) stresses the importance of student interaction with a qualified academic advisor to help achieve academic integration. Seidman (2005) devised a formula for retention:

$$RET = E_{ID} + (E + I + C)_{IV}$$

Or: Retention equals Early Identification plus Early, Intensive, and Continuous Intervention, stressing the important role of reaching out to students who exhibit at-risk behaviors early on, using advisors, faculty members, counselors, and tutors as resources. A large study by Chaney, Muraskin, Calahan, and Goodwin (1998) demonstrated that the Student Support Services (SSS, a federally funded program that supports at-risk students) model of offering students comprehensive tutoring, advising, and counseling services is effective. The results of the study showed that SSS students were 7% more likely to persist into their second year of college than their non-SSS counterparts. The percentage may not seem significant on its own, but in the context of salvaging potential tuition revenue over the course of five or six years (the average number of years students take to graduate), the financial impact on a given institution is of major consequence. For example, at the university where this study was conducted, an increase of 7% in retention of freshmen translates into more than \$527,630 in tuition revenue upon their return for

sophomore year, and more than \$2.5 million over the course of five or six years until graduation.

In their examination of how diverse populations, including low-income and first-generation students, experience college, Gupton, Castelo-Rodriguez, Martinez, and Quintanar (2009) suggest that the lack of social capital, or feeling excluded by one or more groups on campus, can lead to attrition. Therefore, the authors propose that institutions provide tutoring, advising, and counseling, among other services, to these students to strengthen their social identity. Such a network of assistance represents one component of a “validating community of support” (Gupton, et al., 2009; p. 250) that at-risk students need in order to persist. Finally, Kuh (2005), in describing the Documenting Effective Educational Practice (DEEP) project in which Kuh and fellow researchers compiled the best practices and policies of 20 high-performing colleges and universities, outlines the most effective educational practices that promote student success. Tutoring, advising, and counseling are cited as examples of support programs that work, help students to persist, and to feel that they belong at an institution of higher education.

Other Themes of Importance--Tutoring

Tinto (1993, 2006) and other researchers (Seidman, 2005) find that academic support services, such as tutoring, advising, and counseling promote student success and are particularly critical elements of social and academic integration during the first year of college. The literature supports the notion that tutoring is an effective academic resource in terms of academic success and retention at larger institutions (SMB Economic

Research, 1997; Perin, 2004). Hendriksen, Yang, Love, and Hall (2005) find that tutored students are more likely to receive grades of C- or better, are more likely to complete a course, and have higher short-term retention or persistence rates (they were more likely to re-enroll the following semester) than their un-tutored peers. In a three-year study of four colleges in different parts of the country conducted by the U.S. Department of Education, Weinsheimer (1998) reports that students who receive tutoring during their first year of college persist in achieving their academic goals. Further, the report finds that support programs which address the cognitive as well as the affective domain tend to have a greater impact on student success. Similarly, Dale (1995) found tutoring to be the most important aspect of a comprehensive support program at Purdue University. Arkin and Shollar (1982) point to the unique appeal of the peer tutor-tutee relationship as an effective supplement to classroom instruction. During these encounters, the peers develop mutual trust and relate on equal footing. In addition, tutees develop confidence and tend to participate more, instead of listening passively, during the tutoring session. Topping's (1996) extensive study of tutoring at colleges in Britain concluded that tutoring is not only effective in achieving academic success but is beneficial to both students and peer tutors because of the interactive style of communication that develops during sessions.

Federal programs such as TRIO (named for the original three education opportunity programs that arose from the Economic Opportunity Act of 1964—now TRIO consists of eight such programs) also cite tutoring as an essential component in raising GPAs and retention rates at five model programs at universities country-wide (SMB Research, 1997). Commander and Valeri-Gold's (2003) study found that students

themselves recommend tutoring more often than other available support services in their letters of advice to incoming freshmen. Gibbons and Dixon's (2001) study of first year students at a college in California also affirmed the positive effect of tutoring on retention and achievement. These studies suggest that there is much more to the tutoring process than the exchange of ideas and knowledge between the parties, that the tutoring relationship may, in fact, foster academic and social integration, which are integral to retention.

Several studies link tutoring with increased success in particular fields of study or particular courses. For example, British researchers Evans and Flowers (2001) cite the enjoyment future teachers felt in sharing a personal connection with tutors while also reaping the benefits of classroom instruction. A study conducted by Xu, Hartman, Uribe, and Reed (2001) shows that moderately under-prepared math students (as opposed to extremely high and low math-achieving students) gain the most from receiving tutoring. Some studies have examined the nature of the tutoring relationship with engineering students. In research conducted in Australia, Magin and Churches (1995) found that tutees mention the tutoring relationship itself as advantageous to them because of the empathy and understanding it offers. In a study conducted in Great Britain, Saunders (1992) discussed how tutoring was used as a tool to help engineering students improve their social interaction and communication skills in preparation for entering the job market. Higgins (2004) reported on the significantly higher retention rate of nursing students who were at-risk of failing a medical-surgical theory course and who received tutoring support as compared to that of students who opted not to receive the tutoring.

The results of these studies clearly demonstrate that peer tutoring has a positive effect on both academic outcomes and retention across the disciplines.

Several studies also targeted the effects of tutoring on specific student populations, such as at-risk students. For example, Kangas (1992) reports that tutoring improved retention of at-risk students at San Jose Community College who were enrolled in developmental reading, writing, and math courses. Stern (2001) discusses the importance of learning assistance centers offering tutoring to non-traditional students, such as first generation college students, non-native speakers of English, or returning students. The effects of tutoring on at-risk students was also discussed by Opp (2002) who emphasized the particular importance of peer relationships between students of color in establishing a sense of belonging, which is a crucial factor in retention. In terms of retention of undeclared students, Hudson, Henderson, and Henderson (2002) found that tutoring positively affected re-enrollment of first-semester undeclared freshmen for the spring semesters between 1997 and 2001 at a historically black institution. Hence, in addition to its effectiveness among the gamut of courses, tutoring appears to be equally effective in retention of students across a wide variety of student populations. In this study the researcher will compare utilization of tutoring and other support services by undeclared and declared students and examine the relationship the usage has on their persistence.

Advising

Advising is also an important component of a college's or university's retention plan. It is consistent with Tinto's theory (1993) that frequent contact with a faculty advisor may lead to establishing the sense of belonging that encourages students to

remain at the university. As Anderson and McGuire (1997) contend, an effective advising program, as applies to any retention strategy, must focus on student needs and must be built on students' strengths rather than focus on faculty and staff *perceptions* of student needs and the idealized characteristics that faculty wished all students possessed (1997). Thus, the "engagement approach" to advising is one in which the advisor strives to establish a "mutually supportive" relationship between himself and a student in the same academic field of interest (Yarborough, 2002).

However, in situations where advisors are assisting at-risk students, such as academically and economically disadvantaged, minority, and the undeclared, specific advising strategies are required to increase the chances of retaining these students. Heisserer and Parette (2002) found that an integrated approach to advising is most effective for at-risk populations. The integrated approach combines elements from both the *prescriptive* and *developmental* advising model; thus, for example, the at-risk student receives specific instruction on which courses are to be taken each semester (prescriptive) but is also encouraged to visit other resources on campus and explore career opportunities on his own (developmental). *Intrusive* advising has also proved effective with this population because advisors intervene deliberately and on a regular basis by checking in with the student and making direct recommendations. This method has been shown to increase student motivation and to positively impact decision-making skills (Heisserer & Parette, 2002).

Unfortunately, students rated academic advising as their "least satisfying" college experience in national surveys, reflecting the fact that many faculty members provide inadequate advising because of unceasing pressure by administration to pursue

scholarship and other commitments instead of frequent student contact during office hours and advising sessions (Kuh, 2005). In addition, the Documenting Effective Educational Practices (DEEP) project schools mentioned earlier recognize the peril of this imbalance in priorities and remedy it by embedding advising in the first-year experience course, dedicating to new students a faculty member who is at their disposal from the first day of classes. Other institutions install a live-in academic advisor in the freshmen residence hall to insure accessibility to a person who specializes in first-year student concerns (Kuh, 2005).

In fact, extensive research conducted by Astin (1993) on institutions with faculty who are Research-Oriented and those with faculty who are Student-Oriented demonstrates that both student satisfaction and persistence tend to be higher at the Student-Oriented institutions, presumably because of faculty accessibility and frequent student-faculty contact. On the other hand, another reason for student dissatisfaction with the advising process may stem from a divergence in expectations between the students and the faculty members who advise them. In a study on faculty and student perspectives on advising, Allen and Smith (2008) found that while faculty express awareness of the various domains of advising that are deemed most important for students to receive, faculty do not take responsibility for providing each one; they tend to deal more with matters relating to course selection within the major. Meanwhile, the study did not fully elucidate what the students felt was lacking in their advising experience, except that students felt that referral for academic skills improvement by their advisors was among their least valuable functions, which is understandable from their perspective since such referrals often meant recommending students take developmental, non-credit courses as

remediation for their lack of academic preparedness. In any event, one solution to the problem of dissatisfaction offered by the researchers was to divide advising responsibilities between faculty and Student Affairs so that non-faculty advisors could supplement faculty guidance by providing additional assistance with career exploration and by taking more time to make a personal connection with students (Allen & Smith, 2008).

In addition to their obvious role as academic resources, advisors may play a potentially important role in retention by encouraging students to participate in campus events and activities, internships, study abroad, service-learning, and research projects with faculty. Participation in these activities is directly related to student *engagement*, an important aspect of retention, according to Harper and Quaye (2009). Pascarella and Terenzini (2005) reported that in a study of two groups of incoming community college students in New York state, one group of students received pre-admission advising and follow-up sessions during the semester to discuss course selection, involvement in campus activities, and to monitor progress and adjustment to college. The other group went through the normal orientation process, which did not include the advising sessions. The group that received the advising persisted to the second year at a rate that was 20% higher than the control group. Finally, as reported by Tinto (1993), it is important to note that providing advising and counseling services is especially important in retaining students of color and the undeclared. This study did not directly address various types of advising nor did it assess student satisfaction with advising; instead, it compared utilization of advising and other services by undeclared and declared students to examine the relationship of usage to persistence.

Counseling--Definition

There are a number of ways to define counseling in a college setting: on some campuses, counseling services is a discrete entity that assists students with psychological, emotional, personal, and interpersonal issues in a clinical sense and on a voluntary and strictly confidential basis. The same campus may also offer academic counseling as part of a retention initiative targeting an at-risk population, such as African-American male students, or as part of a state or federally funded program, such as an education opportunity program or Student Support Services, which is part of the TRIO grant. Counselors in these programs provide a hybrid of services, or, as Giddan, Levy, Estroff, Cline, Altman, Isham, and Weiss (1987) described, provide an “*in loco parentis* fusion” (quoted in Wilson, Mason, & Ewing, 1997, p. 317) of services, acting as academic and career advisors as well as coaches, mentors, skill builders, referral-makers, sounding boards, motivators, encouragers, and guides. Many of these counselors focus particular attention on first-year students making their transition to college life. For the purposes of this study, counseling referred to the latter model unless otherwise indicated. It was assumed that first-year declared students who met with their faculty advisors in their major field received the equivalent of counseling as previously defined during those advising sessions. Finally, it should be noted that both undeclared and declared students who are part of the opportunity programs (STAR and SSS) at the university in this study had equal access to counseling services.

The impact of emotional adjustment on student retention has been studied by a number of researchers. In a longitudinal study of retention that spanned six years, Gerdes

and Mallinckrodt (1994) conclude that emotional adjustment is as important to or even more important to retention than academic adjustment. In another longitudinal study, Turner and Berry (2000) found that 70% of participating students claimed that personal problems were adversely affecting their grades and about 20% of the students reported that they were considering withdrawing from college as a result. Clearly, non-academic issues must be considered as major factors in assessing student retention and appropriate support services implemented to address this need. In addition, counseling services that promote learning “hard skills,” such as note-taking and textbook reading have also been shown to positively impact persistence. Sharkin (2004) reported that probationary students who received academic counseling while participating in a summer program persisted to a higher degree than those students who did not participate. In this study the researcher compared utilization of counseling and other services by undeclared and declared students and examined the relationship the usage had on their persistence.

Integration of Services

The research on counseling often refers to the “package” of *advising and counseling*, suggesting that the services complement each other in assisting students during their crucial first year and are most effective when delivered in tandem (Tinto, 1993). Further, Tinto (1993) asserts that counseling services work best when they are a mandatory component of a comprehensive retention effort at a particular institution that targets the *whole* student. The results of a study involving teacher education students conducted by Coll and Stewart (2002) demonstrated the effectiveness of collaborative programs that connect counseling services with classroom faculty. Social and academic integration of teacher education students was examined after students taking an

introductory education course were invited to avail themselves of counseling services during the semester. With the cooperation of the professor, the counselor visited the classroom, described the services, and invited students to partake of them. Students were then monitored for attendance and classroom performance, and an early-alert system was implemented so that the teaching faculty member referred the student to the counselor at the first sign of trouble. Students who partook of the counseling services reported feeling more certain of their choice of teaching as a profession as well as feeling more positive about the university. The researchers concluded that those who received counseling benefitted from the collaboration of the two constituencies, the counselor and the faculty member, and achieved higher degrees of social and academic integration because of the experience. The authors recommend further research into this topic, but believe that integration of counseling services with academic departments would positively impact academic and social integration and ultimately retention.

In a later study, Coll and Stewart (2008) went so far as to charge counseling centers with the task of energizing faculty to move forward in retention initiatives. This approach, called the Initiator/Catalyst or I/C approach, enlists the counseling staff to assist faculty in making fundamental changes in classroom environment and interaction with students in an effort to help students feel more connected to the institution. Their study was based on the research of Tinto (1993) and Pascarella and Terenzini (1991), which stresses the importance of both academic and social integration to persistence.

The study conducted by Coll and Stewart (2008) took place at a college of education at a public university. The researchers surveyed the teacher-candidates to assess various factors, such as the amount of contact they had with professors inside as

well as outside of the classroom, to determine if both social and academic integration were taking place. Coll and Stewart were interested in demonstrating that the amount of faculty contact students have, both formally and informally, affects the level of both academic and social integration as measured by scales developed by Pascarella and Terenzini (1991). The authors also wanted to show that collaboration between faculty and counseling personnel is desirable in developing curricula and classroom strategies that address social and academic integration, particularly regarding the amount of faculty contact that each student experiences.

Undeclared Students--Support for the Belief that

Undeclared Students are At-Risk

Undeclared students go by a variety of names and classifications. At some colleges, these students are called “Undecided;” at others, the terms “Exploratory” or “Deciding” are used because administrators feel the “un-” names carry a negative connotation. Thus, “undecided” students may be construed as “indecisive” and therefore somewhat weaker than their “decided” or more “decisive” counterparts. Still other campuses assign the name “General Studies” to those students who have not declared, giving the impression that they do, in fact, have a major. Similarly, as stated earlier, there is disagreement in the literature concerning the categorizing of undeclared students as *at-risk*. For example, Toder and Hartsough (1993) chose a group of undeclared students for their study of persistence of at-risk students. The undeclared students were part of a study that compared persistence between undeclared students who participated in an extended orientation program and those who did not. The extended orientation program offered undeclared students a freshman seminar course, student and faculty

mentors who met regularly with the students, and academic support services, all housed in a Center for Undeclared Students. Persistence was higher among participants who also reported feeling more “bonded” to the institution as a result of the special services available to them.

One rationale for deeming undeclared students at-risk is that in many cases they do not have the advantage of the mentoring and guidance by, or simple contact with, a faculty member whom a declared student would have. Thus, the undeclared student misses out on a crucial feature of both academic and social integration as espoused by Tinto and most other retention theorists. In some colleges, a dedicated advisor is assigned to work exclusively with the undeclared population. The literature supports this strategy as a means of dealing more effectively with groups of students having specific needs. Students at North Carolina A&T State University reported in a study conducted by Addus, Chen, and Khan (2007) that their dissatisfaction with university-wide advising, counseling, and tutoring services stemmed from the fact that the services they received were not specific to their needs within their major field. A case could be made that this would apply to the undeclared population as well—there is a need for this group to have its own center for support services, or at the very least, its own advisor to help create the bond to the university needed for persistence.

A program developed at the University of Missouri-Columbia (McDaniels, Carter, Heinzen, Candrl, & Wieberg, 1994) aims to remove the negative connotation associated with being undeclared by targeting “deciding” students even before classes start at a “Summer Welcome” session, where students are introduced to the Career Center. The Center was designed as a one-stop resource for undeclared students to

explore career possibilities, take a variety of assessments, meet one-on-one with career specialists, and participate in internship opportunities. Thus, undeclared students are encouraged to explore majors without feeling pressured or self-conscious about their status.

Another case for classifying the undeclared as at-risk is discussed in a study that used biographical data, cognitive assessments, and a situational judgment inventory to predict college student outcomes (Schmitt, Oswald, Kim, Imus, Merritt, Friede, & Shivpury, 2007). The study identifies five clusters of students, based on the data collected in the categories above to identify interventions that would help them succeed in college. Many of the students in the study who were classified as “marginal” had not declared a major. Marginal students are at highest risk of failure and in need of immediate and intensive interventions.

In a study examining the influence of major on persistence of White and African-American freshmen at public institutions in the Midwest, St. John, Hu, Simmons, Carter, and Weber (2004) reported that being undeclared had a significant adverse effect on the persistence of White students but had no significant effect on the persistence of African-Americans, suggesting that the non-persisting White students had either enrolled with a lower level of “institutional commitment” or had not initially experienced academic and social integration at their particular institution. Further, in a study using a National Center for Educational Statistics survey of almost 5,000 students, Leppel (2001) reports that among six categories of major field study, students who were undeclared demonstrated both low GPA and low persistence rates; the researcher then recommends

early identification and targeting of undeclared students for intensive support. Thus the literature makes a convincing case for undeclared students being at-risk for attrition.

Support for the Belief that Undeclared Students are Not At-Risk

Not all the research classifies undeclared students as being at-risk for failure and/or attrition. A respected resource book for advisors, *Academic Advising* by Hovland, Anderson, McGuire, Crockett, Kaufman, and Woodward (1997) devotes an entire chapter to advising undeclared students. The chapter's author, Virginia Gordon, describes how similar undeclared students are to most freshmen in terms of their developmental limitations, but then she details their special needs and the characteristics that may account for their being undeclared. The term *at-risk* is not used; instead, the author outlines the possible reasons the student has not decided on major. For example, incoming or continuing students may lack the necessary information to choose a field; they may lack the life experiences that may attract them to a certain field; some may lack decision-making skills of any kind; others may feel no pressure to commit to a certain major; still others may discover incongruence between a field they like and a material goal, such as a student who loves to paint but wants to make a large salary. Finally, there are students who have not yet established an internal locus of control and do not take responsibility for their actions. Interestingly, Gordon also distinguishes between the *undecided* student and the *indecisive* one; undecided students may experience anxiety over choosing a major, but indecisive students feel anxiety about making *any* decision. While offering valuable insights into the mindset of undecided students, the reader does not necessarily get the impression that the undeclared student is in need of intensive, intrusive advising or is at increased risk of failure or attrition.

As reported by Cuseo (2005), Lewallen (1995) conducted a major study of over 20,000 students in a variety of institutions of higher learning and found that, contrary to the findings of other researchers, the undecided students were more likely to persist and had a higher average GPA than declared students. Cuseo differentiates between students' information-gathering stage of "indecision," when they are simply exploring various options as they make the normal transition to college life, and chronic and prolonged indecision, which he feels is the real cause of documented attrition among undeclared students.

On a related topic, a large study conducted at UC Davis (Anderson & Yang, 2000) of about 8,000 students found no significant difference between declared and undeclared students' time-to-degree nor in graduating GPA, suggesting that in the big picture, being undeclared does not adversely affect students' ability to graduate or achieve academic success.

Review of Methodologies

The literature contains various types of studies, including exclusively qualitative or exclusively quantitative and mixed methodologies, as well as reports on "best practices" and reviews of the literature on particular topics. Many of the studies examining a connection between support services such as tutoring, counseling, and advising and retention use surveys to assess student attitudes toward the services.

In some studies, students were surveyed to express their satisfaction with their college experience as a whole. Many retention researchers, such as Tinto (2006), Pascarella and Terenzini (2005), and Kuh (2005) obtain data from national sources, such

as the National Longitudinal Survey (NLS), the National Survey of Student Engagement (NSSE), and from the American College Testing program (ACT).

The various researchers studying the impact of tutoring on persistence used surveys, interviews, and case studies to obtain a clearer picture of how students perceive these services. Many, like Magin and Churches (1995), relied on student self-reports to determine these attitudes. Other researchers, such as Gribbons, Dixon, and Scott (2001), used databases to compare final grades and attrition rates between groups of students who participated in tutoring and those who did not.

Surveys were also used extensively in the studies examining the effect advising may have on persistence. Coll and Stewart (2002, 2008) used scales developed by Pascarella and Terenzini (2005) to assess students' levels of academic and social integration. In their study of the effect of counseling services on student persistence, Turner and Berry (2000) used students' self-reports of the effectiveness of counseling sessions on their persistence and compared them to actual retention and graduation rate data.

In studying undeclared students, persistence was measured quantitatively by researchers such as Schmitt, et al. (2007) who used a combination of background and ability data to predict academic persistence and performance of incoming freshmen. St. John, et al. (2004) examined persistence rates according to major among freshmen and sophomores. Other researchers described programs that were effective in assisting undeclared students (McDaniels, Carter, Heinzen, Condrl, & Wieberg, 1994; Toder & Hartsough, 1993).

Evaluation of the Literature--Overall Strengths and Weaknesses in the Literature

While the evidence presented in the literature is plentiful and presents a strong case for using tutoring, advising, and counseling as part of an overall retention strategy, there is not sufficient evidence to support the idea that these services will help retain undeclared students in particular. In general, there is a lack of research on the undeclared population, and some of what exists is out-of-date, having been conducted in the 1990s. In addition, more research is needed on determining when an undeclared student is simply exploring options in an unfamiliar environment and when he or she is chronically undecided and in need of intrusive advising.

Some studies classify undeclared students as “at-risk” and others do not. It becomes more apparent that the status of undeclared students as being at increased risk of failure or attrition may depend on the organizational and curricular policies of a particular institution, i.e., a blanket characterization of all undeclared students as being at risk is unfounded. More studies that examine how institutions deal with their undeclared populations are warranted. At some institutions, departmental admissions policies are so stringent that they create large populations of undeclared students who are waiting until their GPAs are high enough for them to be admitted to their desired program. In many instances, students do not reach the GPA requirements by junior year and become highly disillusioned and in grave danger of dropping out altogether. There are no safety net policies in place for many of these students in the event that they are not admitted into their program of choice. If more attention is directed toward these institutional policies, administrators may be persuaded to re-assess their impact on student attrition.

While the literature provided a wide variety of quantitative, qualitative and mixed methodology studies, many of the surveys relied on self-report by students regarding how often they availed themselves of support services as well as relating their level of satisfaction with certain services and their perception of the effectiveness of the services. The reliability of self-reporting has been questioned by researchers, and student responses to questions about college services may be subject to the Hawthorne Effect to a certain degree. The Hawthorne Effect, as Saunders (1992) reports in his study of engineering students, occurs when subjects participating in a study tend to respond or behave in the manner they believe is expected of them by the researcher. Elton Mayo (1933) first coined the term in a study conducted in 1926.

Summary of the Review

The literature generally supports the notion that support services such as tutoring, advising, and counseling will have a positive effect on the persistence of second semester, undeclared freshmen at the university in question. The researcher hopes to further demonstrate that the use of these services contributes significantly to these students' social as well as academic integration by promoting a sense of belonging in particular. In addition, the researcher theorizes that capitalizing on promoting a "sense of belonging" in delivering support services is a largely untapped piece of the retention puzzle. Hence, the results of this study may indicate that modifications are needed in training of support personnel and in support services delivery models. For example, the results of the study may suggest a model that utilizes a more personal or even intrusive approach to create a sense of belonging among the students. The fact that the sample

population is doubly at-risk for attrition due to undeclared status *and* low GPA will highlight the impact of these services on retention.

The theoretical foundation of retention research is heavily grounded in two aspects of the college experience from the student's point of view: social and academic integration. According to the theory, both are interrelated in the student's decision to stay or to leave the institution. Even though most students arrive at college with academic skills and preparation, family background, and expectations over which the college has no control, over the course of the first semester(s), administrators, faculty, and staff can exert influence on the students' decision to leave or stay. The policies and practices that are in place can have a major effect on that decision.

Part of this integration is described as a "feeling of belonging" on the part of the student, a type of bond that is formed between the student and the institution that persuades that student to persist. While the feeling of belonging seems difficult to quantify, several instruments have been developed to measure it and are being used in retention research. Indeed, strategies that encourage a "sense of belonging" among students may be viewed as a hot commodity by administrators struggling to improve their decreasing retention rates. Although there is no magic bullet, the research suggests that offering students effective support services that meet their needs is an important factor in helping forge that crucial bond.

Support services, such as tutoring, advising, and counseling can facilitate undeclared students' transition to college and can expedite their social and academic integration. As the literature suggests, tutoring has been shown to assist students not only by helping them become more successful academically, but also with feeling more

connected to the institution. For undeclared students, academic advising and counseling connects students with faculty members who can help them develop decision-making skills and eventually guide them toward a major field through regular contact.

The research points to a trend among colleges and universities that over-emphasizes faculty research at the expense of helping faculty develop more student-centered classroom strategies and increasing their office hours set aside for meeting with students. This trend may account, at least in part, for the disconnected feeling students may develop toward faculty, eventually leading to attrition.

Finally, researchers agree on the importance of engaging students early in their college experience to establish a connection between them and the institution which in turn will bridge the span between the students' academic and social integration. Providing effective and accessible tutoring, advising, and counseling services is one avenue toward achieving that goal.

CHAPTER 3

METHODOLOGY

Introduction

The purpose of this study was to examine how obtaining support services such as tutoring, advising, and counseling related to the persistence of second-semester undeclared freshmen at a public, four-year university in the Northeastern United States. Beginning in the 1970s, Vincent Tinto (1975) conducted research to determine why students left college. He developed a model delineating the reasons for attrition, dividing them into two main categories, the Academic and the Social (Nordquist, 1993). Subsequent research suggests that student participation in academic support services, such as tutoring, advising, and counseling may serve to link those two domains, providing students with a venue to meet both their social and academic needs early on in their college careers (Jarrell, 2004; Nordquist, 1993).

The issue of persistence and ultimately retention is one of importance and urgency because recent studies reveal a drop in retention rates, especially at four-year institutions (Chronicle of Higher Education, January, 2009). As colleges scramble to stem the tide of attrition, it becomes clear that efforts to retain students, including those considered at-risk, loom large in many institutional strategic plans. At the university where this study was conducted, one group of students, *undeclared* second-semester freshmen with GPAs of below 2.0, were selected to examine how support services were associated with their persistence. The group was then compared to a corresponding group of *declared*, second-semester freshmen with GPAs in the same range. Analysis of the results revealed insights into the correlation, between taking advantage of academic support services and

the undeclared students' persistence. In addition, the results focused on the impact, of using support services on the students' *sense of belonging* at the university.

There is a relatively large population of undeclared students at the university in this study. This group is considered at-risk because undeclared students are less likely to have contact with faculty advisors on a regular basis. Although they are advised by a faculty member assigned to serve the undeclared population exclusively and by several other faculty members who work for the opportunity programs on campus or who teach the First Year Experience course, these students still miss out on a mentoring relationship with a faculty member in a particular field of study. Thus, their chances of becoming less engaged academically and subsequently leaving the college are greater than those of declared students, who enjoy all the advantages of having a faculty advisor to help them navigate through their college careers, especially during the freshmen year when students are most vulnerable to dropping out.

Research Problem

Undeclared freshmen are at greater risk of leaving college, and this may be in part because they do not have a departmental advisor to assist them in developing an academic plan, choosing courses, or providing general guidance to smooth the transition to college. In addition, undeclared students may miss out on opportunities to connect with a faculty member from a specific major on a regular basis and thus may take longer to, or may never, achieve social or academic integration to the same degree as students who have declared a major.

Purpose of the Research

The purpose of the study was two-fold: First, to examine the relationship between obtaining support services (such as tutoring, advising, and counseling) and the persistence of second-semester undeclared freshmen who are academically at risk. Secondly, the study compared the undeclared and declared students' rates of persistence as well as their usage of support services, to which both groups had equal access.

Research Questions

The questions addressed in this study are as follows:

Quantitative Research

1. Is there a relationship between support services usage and overall persistence in college among second-semester freshmen who are at-risk, undeclared majors?
2. Do at-risk, undeclared students feel less connected to the university than declared students?
3. Do at-risk, undeclared students have significantly lower levels of Persistence in college when compared to declared majors?
4. Overall, is there a significant difference between undeclared and declared students in their utilization of support services (tutoring, advising, and counseling)?

Qualitative Research

The interview questions mirrored the survey questions and responses used to strengthen and elucidate survey responses regarding academic and social integration (including sense of belonging) at the university.

Context of the Research

The study took place at a public four-year institution in the Northeastern United States during the spring semester of 2011. The university in this study has a relatively large population of undeclared students. Over a 10-year period, the undeclared population has comprised an average of 8.6% of the total undergraduate student population, or about 420 students per year (East Stroudsburg University, Office of Academic and Institutional Effectiveness, 2008). In the fall semester of 2009, the undeclared population consisted of 571 undergraduate students, or 8.9% of the student population, indicative of a slight upswing in an otherwise downward trend that began in the spring of 2003 (East Stroudsburg University, Academic and Institutional Effectiveness, 2009). A random selection of 3 of the other 14 Pennsylvania System of Higher Education (PASSHE) universities revealed a wide range in the percentage of undeclared undergraduate students; the lowest percentage was 5% at Millersville University, followed by 12% at Kutztown University, while Bloomsburg had the highest percentage of undeclared undergraduates at 18%.

In order to address the issues surrounding the consistently high number of students who are undeclared, administrators have implemented a number of strategies to more effectively serve these students by assigning special advisors to work exclusively with that population, conducting career workshops, and recruiting departmental faculty to make presentations about the requirements and career paths within specific fields. Despite these efforts, the data show that the total number of undeclared students has not decreased significantly from year to year, suggesting that new strategies must be

implemented to help these students find a field of interest earlier rather than later in their college careers.

Research suggests that undeclared students are more likely to leave college before degree attainment than those who declare a major (Hoyt, 1999; Leppel, 2001; Toder & Hartsough, 1993; St. John, et al., 2004). Therefore, this study will be undertaken in an attempt to provide further insight into strategies that may increase retention of undeclared students, such as utilization of support services like tutoring, advising, and counseling. The results of the study may be cited to enact or support university policies regarding undeclared students, such as, for example, requiring them to attend tutoring sessions and to seek academic advisement and/or counseling services to increase their chances of persistence.

Participants in the Research

According to data from Academic and Institutional Effectiveness, 366 freshmen were undeclared out of a total undeclared population of 553 representing roughly 66% of the undeclared population at the university during the fall 2004 semester. This disproportionate number of freshmen as opposed to upper classmen is not overly surprising in light of the fact that many students enter college wanting to explore various fields as they take courses while amassing the required general education credits during their first year. In the fall of 2009, 571 undergraduates were undeclared, representing almost 9% of the total undergraduate population.

Yet most pertinent to this particular study is the fact that in the spring semester of 2010, 53 second-semester undeclared freshmen were placed on either academic warning or probation, representing about 11% of the total population of students in academic

jeopardy, meaning that they have a Grade Point Average of between 0.000 and 1.999, according to the advisor for students in academic jeopardy (G. Francois, personal communication, November 13, 2010).

A similar sample size of undeclared second-semester students on academic warning or probation was included in this study. Specifically, the study utilized two groups of second-semester freshmen: The entire *undeclared* population of about 55 students who were at-risk based on the previous semester's grades was surveyed during the semester to determine reported usage of support services (tutoring, advising, and counseling). In addition, the entire at-risk, second-semester student population from the larger *declared* group of about 160 students was also surveyed to ascertain reported usage of services. Students were identified using the database that tracks students in academic jeopardy. It should be noted that actual usage was not verified by the researcher; the data collected were based on self-reports by students in both groups via their survey responses. It is also important to note that students with whom the researcher had direct contact in her capacity as STAR Counselor and/or First Year Experience course instructor were disqualified from participation in the study.

During the spring 2011 semester, approximately 55 undeclared students and 160 declared students were contacted and asked to complete the *Survey of Student Perceptions of Support Services, Persistence, and Belongingness* (see Appendix A), which is comprised of items adapted from valid instruments. Items on the survey required students to consider their attitudes toward support services; their perceptions of feeling connected to the university; and, their intentions to return to the university the following semester. Group members were identified through a database which tracks

students whose GPAs are below 2.0. The students were then contacted by the researcher via email and direct mail to garner their consent to complete the survey. STAR program students in the database were eliminated from participating.

Toward the end of the spring semester, a purposive sample of students in each group of declared and undeclared students was selected based on their response to Item 15 on the survey (Appendix A), which asks if the student would be willing to discuss perceptions of support services in more detail. The students who responded “Yes” to participating in an interview were then contacted to arrange the interview. The students who participated were interviewed using the *Student Perceptions of Feeling Connected to the University* (see Appendix B), a set of questions which correlated with specific items on the survey, such as feeling a sense of belonging and intention to return to the university in the fall. The questions were adapted from valid instruments to elaborate further and in greater detail on students’ attitudes about the support services they used, their views on feeling connected to the university, and the possible impact those services may have had on their intention to return to the university the following semester.

Instruments Used in the Study

The questions in the survey were adapted from those in an instrument used to measure college student engagement, the National Survey of Student Engagement: The College Student Report (NSSE). The NSSE is a highly regarded and widely used instrument in colleges and universities throughout the country. Kuh (2002) argues that student self-report instruments such as the NSSE are valid as long as certain conditions are met, including having clearly-worded questions and having the information needed to answer the questions.

Survey questions posed in the *Survey of Student Perceptions of Support Services, Persistence, and Belongingness* (Appendix A) that address students' sense of belonging or connectedness to the institution were adapted from instruments that typically ask students for their level of agreement in response to statements such as: "I feel comfortable on campus;" "My college is supportive of me;" "I feel that I am a member of the campus community;" and, "I feel a sense of belonging to the campus community" (Johnson, Soldner, Leonard, Alvarez, Inkelas, Rowan-Kenyon, & Longerbeam, 2007). Tests of internal consistency (Cronbach's alpha) on the instrument developed by Johnson, et al. ranged from .62 to .90.

In addition, interview questions in the *Student Perceptions of Feeling Connected to the University* (Appendix B) were adapted from Johnson, et al. (2007) and another instrument measuring "sense of belonging" among first-year college students using a set of focus questions developed by Hoffman, Richmond, Morrow, and Salamone (2003). The Kaiser-Meyer-Olkin measure of inter-relatedness for this instrument was calculated at 0.92. The questions gauge students' perception of being connected to the university, which as Tinto and others (2006) have theorized is a factor that increases the chances that students will persist.

Procedures Used

Phase One

The study commenced during the spring semester of 2011. Both undeclared and declared, second-semester freshmen with GPAs below 2.000 were identified using a database developed by the advisor for students on academic warning and probation.

Phase Two

At the ninth week of the semester, all undeclared and declared at-risk, second-semester freshmen were sent a letter of consent (Appendix C) and cover letter (Appendix D) explaining the purpose of the study and insuring participants' anonymity and confidentiality of responses. Directions for completing and returning the survey as well as a copy of the survey itself were included. Surveys coded with a "U" were distributed to the undeclared participants, and those coded with a "D" distributed to declared participants. All surveys included the student identification number. These materials were sent to participants via both email and direct mail and included instructions about where to return the consent form and the survey. Participants had the option of bringing the consent forms and surveys to a collection box located in the tutoring center or to return them to the researcher via campus mail or email. Follow-up emails and mailings were distributed weekly to remind participants to submit their letters of consent and surveys.

Phase Three

At the 13th week of the semester, undeclared and declared participants' surveys were collected and divided into undeclared and declared groups. Those respondents who indicated they were willing to participate in interviews were mailed a consent form (Appendix E) and cover letter (Appendix F) inviting them to be interviewed and assuring them that anonymity and confidentiality would be maintained. All interviews were conducted by the researcher and were audio-taped.

Data Collection and Analysis

This study employed a mixed methodology (QUAN-QUAL) in collecting data relating to academically at-risk undeclared students, their use of support services, and the relationship, if any, between students' attitudes about those services and their decision to persist at the university.

Quantitative

Survey responses were collected and organized using Microsoft Excel and then exported to SPSS 14.0 to calculate item analyses. SPSS was then used to complete frequency distributions, cross tabulations, and descriptive statistics of the survey responses. Data correlating support services usage and overall persistence of undeclared, at-risk freshmen were analyzed using a Pearson Correlation procedure. Data correlating undeclared students with less connectivity to the university as compared to declared students were analyzed using a *t-test* procedure. Data comparing persistence of undeclared and declared at-risk freshmen were analyzed using a *t-test* procedure. Finally, data comparing undeclared and declared students' usage of support services were analyzed using a *t-test* procedure.

Qualitative

According to Gay, Mills, and Airasian (2006), qualitative research is indicated when the researcher is less concerned with proving a hypothesis than examining a particular phenomenon within a specific context using a limited number of participants and collecting data through interviews and observation.

Responses to interview questions were audio-taped, transcribed, organized, categorized, and synthesized. Data were reviewed to determine major common themes and summarized in a narrative.

Definition of Terms

Advising. Meeting with a faculty advisor within a major, an advisor for undeclared students, or the advisor for students in academic jeopardy.

Belongingness. The perception on the part of the student that he belongs at the university, that he is supported and connected both academically and socially.

Counseling. Meeting with an academic counselor in a specialized or grant-funded program such as Student Support Services.

Persistence. The intention to return to the university the following semester as reported by the student in response to Item 9 of the *Survey of Student Perceptions of Support Services, Persistence, and Belongingness*.

Support Services (tutoring, advising, and counseling) Usage. The self-reported utilization of the services by respondents to the survey (Appendix A).

Assumptions

It is assumed that the university desires to decrease the number of undeclared students and increase their rate of persistence. Further, it is assumed that undeclared students are at greater risk of attrition than students who have declared a major. Finally, it is assumed that both undeclared and declared students are aware of the availability of support services such as tutoring, advising, and counseling.

Delimitations

The study was confined to a population at one public university in the Northeast region of the United States. Further, the sample size of the study is relatively small and thus may not generalize to the entire population of that particular university or any other university. The data were collected over the course of a single semester and may not accurately predict longer-term trends. The data collected regarding usage of support services were based on self-reports by the students and was not verified by the researcher. Finally, the issue of large numbers of undeclared majors at this particular university may not generalize to other universities.

Limitations

The study did not address race, gender, or age in assessing the impact of tutoring, advising, and counseling on persistence of undeclared students. In addition, the reasons for student attrition during the course of the study was not explored; therefore, it is not known whether students who left the university did so for financial or personal reasons, or in order to transfer to another institution, or if they left because they perceived the support services offered were insufficient or ineffective, or did not foster a sense of belonging to the university.

It should be noted that seeking support services such as tutoring, advising, and counseling involves a complex subset of attitudes and motivations not easily discernible to observers, and often not acknowledged by the students themselves. Students seek academic support for a variety of reasons, including strong urging by professors or parents in an effort to help the student improve poor performance or improve attitude or motivation, and at times even to partially fulfill a course requirement. However, highly

motivated and successful students often voluntarily pursue academic assistance in order to improve or maintain good grades, or to simply get the most out of their college experience. Yet there are others who will continue to feel embarrassment about receiving help even after the benefits of doing so manifest themselves in higher grades and increased satisfaction with their college experience. Meanwhile, still others will extol the benefits of receiving help at every opportunity. Thus, the variety of student responses to seeking academic support in all its forms runs the gamut and is difficult to predict or measure, conjuring up the issue of self-efficacy and students' ability to realize when they need help and to seek it out.

The wide range of attitudinal factors may well color how students respond to survey and interview questions about their experiences with support services. For example, reluctant tutees, advisees, or counselees may hesitate to admit any type of bonding experience or increased feeling of connection to the college due to their experience with support faculty or staff. Indeed, even willing and eager participants in the services may hesitate to admit that they felt a social bond with their tutor, advisor, or counselor that may have helped them through a difficult period during the semester, possibly even influencing their decision to persist. Instead, students may prefer to believe that they are solely responsible for their persistence at college. While underlying attitudes and hidden agendas are not generally discernible when analyzing survey and interview questions, it is nonetheless important to consider their tacit role when drawing conclusions from the data.

Research Timeframe

During the course of the spring semester of 2011, the researcher selected all undeclared, second-semester freshmen with a GPA of between 0.000 and 1.999 (55 students) and all declared, second-semester freshmen with similarly low GPAs (160 students). The students were selected from the database of students placed on academic warning or probation. Students from either group who have had direct contact with the researcher in connection with her role as Academic Counselor for the STAR program or First Year Experience instructor were not included in the sample.

During the ninth week, all students from the at-risk, undeclared, and declared groups were given the *Survey of Student Perceptions of Support Services, Persistence, and Belongingness* to complete (Appendix A) regarding their reported usage of support services and their perception of whether using the services influenced their decision to continue their studies at the university. During the 13th week, students from each sample were purposively selected for interviews regarding their perception of support services and their feelings of belonging to or connection with the university using questions from the *Student Perceptions of Feeling Connected to the University* (Appendix B).

Data were collected, analyzed, and reported during the subsequent four to six weeks. A return rate of approximately 42% was attained for the surveys.

Table 1

Timetable for Proposed Study

Timeframe	Planned Activity	Expected Outcome
Beginning of Spring Semester	Sample selection	Select undeclared and declared second semester freshmen who are on academic warning or probation
9 th Week	Distribute questionnaire to sample	Code responses to determine trends and themes
13 th Week	Interview subgroups	Code responses to determine trends and themes
6 Weeks after Date Collection	Data analysis	Compile results and interpret

Summary

This study investigated whether using support services, specifically tutoring, advising, and counseling had an effect on persistence of a random sample of an at-risk population, namely undeclared students, at a public university in the Northeast region of the United States. In addition to being undeclared, the students included in the sample also had relatively low GPAs (between 0.000 and 1.999). This particular university has a relatively large population of undeclared students for a number of reasons, and as a result administration, realizing that the undeclared are at higher risk of attrition than their declared counterparts, has been examining various strategies to retain these students and to encourage them to select a major by the end of their sophomore year.

This study demonstrated that these students have a better chance of staying at the university if they avail themselves of support services such as tutoring, advising, and counseling. In addition, the study examined the association, if any, of using support services on promoting a feeling of belonging among vulnerable freshmen. Establishing a connection between the student and the institution is a major factor in retaining the student, according to Tinto (2006) and many other researchers. Establishing that connection during the critical first year of college may serve as a bridge for the academic and social integration that is necessary for student persistence.

In examining, analyzing, and interpreting the quantitative and qualitative data collected during the study, the researcher examined the association, if any, of using support services on the persistence of an at-risk population. The results of the research may assist administrators in devising strategies to increase retention of these students by requiring them to utilize the services. In addition, staffing decisions with regard to tutoring, advising, and counseling services may also be impacted if it is shown that access to and contact with faculty and staff in these areas positively impacts student retention.

CHAPTER 4

DATA ANALYSIS AND RESULTS

The purpose of this study was to examine the relationship between using support services and persistence and sense of belonging among at-risk, second semester undeclared freshmen. A mixed methodology was used to ascertain the perceptions of students toward support services offered at the university, specifically, whether students believed that using the services influenced their decision to return to the university the following semester and if using the services helped foster a sense of belonging or connection with the university.

During the 12th week of the spring 2011 semester, 216 copies of the *Survey of Student Perception of Support Services, Persistence, and Belongingness* (see Appendix A) were distributed to second semester declared and undeclared freshmen who had been placed on academic warning for earning a Grade Point Average of 1.9 or below during the fall semester. Over the course of the remaining weeks of the semester, 90 completed surveys were returned. Of those respondents, 47 were females and 43 males; 49 were of undeclared status, while 41 were declared majors. The average number of credits completed was 13. Thirty-five respondents agreed to be interviewed, but after contacting and requesting to meet with those who agreed to be interviewed, only eight respondents were actually interviewed during the final two weeks of the semester. Of those interviewees, six were female, and two were male; two were of undeclared status, and six were declared (see Table 2).

Table 2

Survey Respondents Data: Gender, Major Status, Interview Request

	Frequency	Percent
Females	47	52.2
Males	43	47.8
Undeclared	49	54.4
Declared	41	45.6
Average Number of Credits	13	
Agreed to Interview	35	38.8
Declined Interview	55	61.1
Realized Interview	8	8.9

Note. n = 90.

The research model involved a mixed methodology; quantitative and qualitative. The distribution of responses to the survey for both the undeclared and declared groups items may be found in Appendix G. Quantitative data results are presented first and in response to each of the research questions:

1. Is there a relationship between perception of using support services and reported persistence in college among second-semester freshmen who are at-risk, undeclared?

2. Do at-risk, undeclared students report feeling less connected to the university than declared students?

3. Do at-risk, undeclared students have significantly lower levels of reported persistence in college when compared to declared majors?

4. Overall, is there a significant difference between undeclared and declared students in their reported attitudes toward support services (tutoring, advising, and counseling)?

In addition to addressing each research question according to the survey item(s) that correspond(s) to it, the researcher then summarized the survey responses and explained the statistical calculations displayed in the tables.

It must be noted that the survey instrument used in the study relied on responses of students based on self-reports regarding usage of the support services being examined and that the reported usage was not verified by the researcher. Thus, the results reported in the study may not accurately reflect actual behaviors of the participants.

In addition, for the purposes of this study, it must be noted that, as utilized in the survey, the definition of *persistence* on the part of students was their reported intention to return to the university the semester following the study.

Finally, Cronbach's Alpha was used to calculate the internal consistency of all the items on the Survey of Student Perception of Support Services, Persistence, and Belongingness. The results indicate that the level of internal consistency of the items on the survey was relatively high ($\alpha = .860$). In addition, reliability was calculated for the various subscales embedded in the survey. For example, the reliability of those items related to "Belonging" (Survey Items 11-14) was calculated ($\alpha = .709$). The reliability of the survey items relating to each of the support services was also determined and the results were as follows: Tutoring (Survey Items 1 and 2): $\alpha = .821$; Advising (Survey

Items 3 and 4): $\alpha = .829$; Counseling (Survey Items 5 and 6): $\alpha = .920$; “Success” (Survey Items 7 and 8): $\alpha = .745$. These results demonstrate relative consistency in reliability in the component variables contained in specific survey items and in the survey as a whole.

Quantitative Data Results

The survey items were grouped and labeled according to the variable they addressed, such as *Belonging*, *Persistence*, *Tutoring*, etc. A *t*-test was applied to each of the six variables to calculate the difference in the means of the responses of the undeclared and declared groups. Standard error differences were calculated to measure the variability in responses to the mean. The *t*-test results for all variables revealed no significant difference between the responses of undeclared and declared students; in addition, the standard error difference showed little deviation from the mean in responses between the undeclared and declared group.

Research Question One

Is there a relationship between perception of using support services and reported persistence in college among second-semester freshmen who are at-risk, undeclared?

Survey Item 9 (see Appendix A) focused on students’ reported intention to return to the university the following semester, while Item 10 focused on the perception that students’ reported usage of support services contributed to their intention to return (see Table 3).

Table 3

Group Statistics for Survey Items 9 and 10 (Undeclared Students)

Item Number	Status	N	Mean	Standard Deviation
9	Undeclared	49	4.39	1.304
10	Undeclared	49	3.20	1.414

Note. $p < .05$.

The group statistics in Table 3 indicate that scores for Items 9 and 10 were normally distributed.

Survey Item 9 asked undeclared respondents if they agreed with the statement, “I intend to return to ESU next semester.” Among the 49 undeclared respondents, 38 or 77.6% responded that they “Strongly Agree” with the statement (see Appendix G).

Survey Item 10 asked if students believed that using support services (tutoring, advising, counseling) influenced their decision to return to the university next semester. Among 49 undeclared respondents, only 12 or 24.5% responded “Strongly Agree,” while 9 respondents or 18.4% responded “Agree” for a total of 42.9%. Meanwhile, 9 respondents or 18.4% responded “Strongly Disagree,” 5 respondents or 10.2% responded “Disagree,” for a total of 14 or 28.6%. In addition, 14 respondents or 28.6% responded that they “Neither Agree nor Disagree” with the statement (see Appendix G).

These results appear to indicate that respondents more often than not linked their belief that using support services influenced their decision to return, with their reported intention to return the following semester; and second, while most of the undeclared

students felt sure of their intention to return the following semester, fewer students directly attributed their intention to return with their reported usage of support services.

Table 4

Correlations of Survey Items 9 and 10 (Undeclared Students)

	Item 9	Item 10
Item 9 Pearson Correlation	1	.058
Sig. (2-tailed)		.693
N	49	49
Item 10 Pearson Correlation	.058	1
Sig. (2-tailed)	.693	
N	49	49

Note. $p < .05$.

Items 9 and 10 were tested for correlation in order to examine if second-semester, undeclared students' reported intention to return to the university the following semester was related to their belief that using support services influenced that intention to return. Thus, the researcher sought to discover a relationship between perception of using services and the expectation to continue at the university among undeclared freshmen despite their at-risk status. To determine if there was a correlation, scores for Survey Items 9 and 10 were measured using the Pearson r (see Table 4). This method was appropriate because two variables (persistence and support services), expressed as intervals, were tested for correlation among the undeclared sample ($n = 49$). The Pearson Correlation for Survey Items 9 and 10 was .058, indicating there was no significant

inference of a correlation between the two variables, support services usage and overall persistence, for the undeclared sample.

Research Question Two

Do at-risk, undeclared students report feeling less connected to the university than declared students?

In order to answer this research question, Survey Items 11, 12, 13, and 14 (see Appendix A) were examined and analyzed. These items focus on students’ “sense of belonging” to the university as a whole, and the contribution of support services (tutoring, advising, and counseling) to cultivate that sense of belonging. The research question asks if there is a significant difference in perception of belonging by undeclared and declared students, specifically, if undeclared students feel less connected to the university than declared students. To analyze this research question, the four survey item responses were first grouped together as one variable labeled “Belonging” and then were divided into two groups, undeclared and declared students. The mean, standard deviation, and standard error for each group were calculated (see Table 5).

Table 5

Group Statistics for Belonging (Survey Items 11-14)

Status	N	Mean	Standard Deviation	Standard Error Mean	t	df	Sig (2-tailed)
Undeclared	49	3.7857	.78137	.11162	1.625	88	.108
Declared	41	4.0305	.61795	.09651			

Note. $p < .05$.

The group statistics in Table 5 show that the scores for each group are normally distributed.

To determine the significance of the difference in responses between undeclared and declared students, a *t*-test for independent samples was applied, comparing the means of each sample. In regard to the *Belonging* variable, results show that there is no significant difference between the responses to survey items 11, 12, 13, and 14 of undeclared and declared students; therefore, the analysis of responses to Research Question 2 comparing sense of belonging of undeclared students to that of declared students showed no significant difference in perception of belonging to the university between the two groups ($t(88) = 1.63, p > .05$).

Research Question Three

Do at-risk, undeclared students have significantly lower levels of reported persistence in college compared to declared majors?

This research question corresponds to the Survey Item 9 (see Appendix A), which states that the student intends to return to the university next (fall) semester. It was assumed by the researcher that students who responded that they Agree or Strongly Agree with the statement intended to continue their studies and were thus “persistent” as opposed to those who Disagree or Strongly Disagree, as their responses indicate they are not as likely to return and therefore, are not persistent. The mean, standard deviation, and standard error mean were calculated for undeclared and declared groups (see Table 6).

Table 6

Group Statistics for Persistence (Survey Item 9)

Status	N	Mean	Standard Deviation	Standard Error Mean	t	df	Sig (2-tailed)
Undeclared	49	4.3	1.304	.186	.301	88	.764
Declared	41	4.46	1.027	.160			

Note. $p < .05$.

The group statistics in Table 6 display a normal distribution of scores for both the Undeclared and Declared groups.

A *t*-test was used to determine if there was a significant difference in levels of persistence between undeclared and declared students as reported in responses to Survey Item 9. The *t*-test analysis indicated there was no significant difference in the reported levels of persistence between undeclared and declared students ($t(88) = .301, p > .05$) (see Table 6).

Research Question Four

Overall, is there a significant difference between undeclared and declared students in their reported attitudes toward support services (tutoring, advising, and counseling)?

This research question refers to Survey Items 1, 2, 3, 4, 5, 6, 7, and 8 (see Appendix A). Survey items 1 through 6 address support services independently (tutoring, advising, and counseling), stating that the student feels comfortable using the service and that the student feels that using the service is helpful. Items 1 and 2 refer to tutoring; items 3 and 4 refer to advising; items 5 and 6 refer to counseling. Item 7 groups all three

services together and states that they are helpful to the student. Item 8 also groups the services together and states that they have helped the student achieve academic success. Again, when considering the responses to these survey items, it is worth noting that usage of support services was self-reported by the respondents to the survey and not verified by the researcher.

First, Group Statistics were calculated for each of the support services, starting with tutoring (see Table 6), as referenced in Survey Items 1 and 2 (see Appendix A).

Table 7

Group Statistics for Tutoring (Survey Items 1 and 2)

Status	N	Mean	Standard Deviation	Standard Error Mean	t	df	Sig (2-tailed)
Undeclared	49	3.8469	.91403	.13058	.218	88	.828
Declared	41	3.8902	.96509	.15072			

Note. $p < .05$.

The group statistics displayed in Table 7 indicate a normal distribution of scores in each group.

Next, a *t*-test was used to determine if there was a significant difference between the mean scores of declared and undeclared students' responses to Survey Items 1 and 2 regarding their reported beliefs that they felt comfortable using tutoring and that tutoring was helpful to them. The analysis shows that there is no significant difference between tutoring scores for undeclared (mean = 3.8469, SD = .91403) and declared students (mean = 3.8902, SD = .96509), with $t(88) = .218, p > .05$.

Then, student responses to Survey Items 3 and 4 (see Appendix A), regarding advising, were analyzed (see Table 8).

Table 8

Group Statistics for Advising (Survey Items 3 and 4)

Status	N	Mean	Standard Deviation	Standard Error Mean	t	df	Sig (2-tailed)
Undeclared	49	4.0816	1.09614	.15659	1.060	88	.292
Declared	41	3.8537	.90997	.14211			

Note. $p < .05$.

The group statistics again show a normal distribution of scores for both groups.

A *t*-test was then applied to compare the means of students' responses to Survey Items 3 and 4, which state respectively that students reported feeling comfortable meeting with their advisor and that meeting with their advisor is helpful. The results show there was no significant difference between scores for undeclared (mean = 4.0816, SD = 1.09614) and declared students (mean = 3.8537, SD = .90997) regarding advising, with $t(88) = 1.060, p > .05$.

The next analysis references Survey Items 5 and 6 (see Appendix A) regarding counseling. Those items stated respectively that students reported feeling comfortable meeting with a counselor and that meeting with a counselor is helpful (see Table 9).

Table 9

Group Statistics for Counseling (Survey Items 5 and 6)

Status	N	Mean	Standard Deviation	Standard Error Mean	t	df	Sig (2-tailed)
Undeclared	49	3.9286	.95743	.13678	.996	88	.322
Declared	41	3.7439	.76748	.11986			

Note. $p < .05$.

The group statistics once again exhibit a normal distribution of scores for both groups.

Next, a *t*-test was applied to determine if there is a significant difference in the mean scores of undeclared and declared students regarding counseling. The counseling scores once again revealed no significant difference between undeclared (mean = 3.9286, SD = .95743) and declared students (mean = 3.7439, SD = .76748), with $t(88) = .996$, $p > .05$.

Finally, the three support services, tutoring, advising, and counseling, were grouped together as one variable labeled “Success” and analyzed. The Success variable refers to Survey Items 7 and 8 (see Appendix A), which state respectively that reported usage of support services is important to the student’s academic success and that using the services has already helped the student achieve academic success (see Table 10).

Table 10

Group Statistics for Success (Survey Items 7 and 8)

Status	N	Mean	Standard Deviation	Standard Error Mean	t	df	Sig (2-tailed)
Undeclared	49	3.9694	.84415	.12059	.591	88	.556
Declared	41	3.8659	.80641	.12594			

Note. $p < .05$.

The group statistics confirm a normal distribution of scores.

Next, a *t*-test was applied to the Success variable, which embodies all three support services (tutoring, advising, and counseling) to determine if there was a significant difference in the means of the responses between the undeclared and declared groups. Once again, no significant difference was found between success scores for undeclared (mean = 3.9694, SD = .84415) and declared respondents (mean = 3.8659, SD = .80641), with $t(88) = .591, p > .05$.

Since a total of six *t*-tests were performed to answer Research Question 4, a Bonferroni Correction was applied to the alpha level (.05) in order to control the Type I error rate (Field, 2009). The analyses of responses to Survey Items 1-8 (see Appendix A) in answering Research Question Four (Is there a significant difference between undeclared and declared students in their utilization of support services (tutoring, advising, and counseling?)) showed no significant difference between the groups in their responses to the survey items listing the services as individual variables or as a grouped variable (Success).

Quantitative Research Data Summary

First, it is important to note that the survey responses regarding perceptions of support services relied on self-reporting by the respondents. Although Kuh (2002) makes a convincing case for the reliability of self-report surveys, the reported usage of tutoring in particular by the participants was not verified in this study. Thus, the research questions focused on undeclared and declared students' perceptions of using support services, feelings of belongingness, reported intention to persist, and attitudes toward support services, in particular, their comfort with and sense of helpfulness of the services. The data collected from 90 student survey responses provided answers to the four research questions posed in this study.

Analysis of the first research question: Is there a relationship between perception of using support services and reported persistence in college among second-semester freshmen who are at-risk, undeclared majors? demonstrated that there was no significant relationship between usage of support services and persistence among the at-risk, undeclared students. Of the 49 undeclared respondents, 38 responded "Strongly Agree" to the statement (Survey Item 9) that they intended to return to the university in the fall. However, only 12 responded "Strongly Agree" to the statement (Survey Item 10) linking that intention to return to the university with their use of support services. Thus, it would appear that most students intended to persist for at least another semester at the university, but they were not connecting that intention with using support services. The implications of these results will be discussed at length in Chapter 5.

The analysis of data relating to Research Question Two: Do at-risk, undeclared students report feeling less connected to the university than declared students? showed no

significant difference in responses to Survey Items 11, 12, 13, and 14, grouped together as the variable “Belonging,” between the undeclared and declared groups. The highest percentage of respondents in the undeclared group (44.9%) responded “Agree” to Survey Item 11, which states: “I believe offering support services demonstrates that my college supports me.” This represented a slightly lower percentage than the declared group’s “Agree” response to the same item (51.2%), which may merit further consideration in a study using a larger sample size.

In response to Survey Item 12, which states, “Feeling like I belong is important to me,” a total of 63% of undeclared students responded either “Agree” or “Strongly Agree” while a total of 87.7% of declared students responded either “Agree” or “Strongly Agree.” Even though the analysis indicated that the differences in perception of belonging between undeclared and declared students were statistically insignificant, the distribution of responses was more widespread among the undeclared students. This may imply that the undeclared group had less of a need for belonging or it may reflect the fact that undeclared students experience belonging to a lesser degree than declared students, and thus they conclude it must not be of utmost importance. Further study using a larger sample may support these inferences.

Item 13 states: “I believe I belong at the university.” Over 70% of respondents in both the undeclared and declared groups either agreed or strongly agreed with the statement, indicating that there was little difference in the perception that the university was a good fit for most. The implications of this finding and possibilities for further study will be discussed in Chapter 5.

Item 14 is the key statement that links support services usage at the university with students' sense of belonging: "Using support services offered by the university contributes to my sense of belonging here." The responses from both the declared and undeclared group show that students did feel that using the services contributed to that sense of belonging to some extent. Once again, the declared group expressed a stronger affirmation of that statement since a total of 68.2% of them responded "Agree" or "Strongly Agree." In contrast, the percentage of undeclared students who responded "Agree" was the same as those who "Neither Agree or Disagree" (34%). The implications of these findings and opportunities for further research will be discussed in Chapter 5.

Research Question Three asks, Do at-risk, undeclared students have significantly lower levels of reported persistence in college when compared to declared majors? Survey item 9 states, "I intend to return to the university next semester." Both the undeclared and declared groups responded with a resounding "Yes," with 83.7% answering "Agree" or "Strongly Agree." The declared group responded with a total of 90.3% who either "Agree" or "Strongly Agree" with the statement that they intend to return. These results show an extremely high degree of intention to persist despite the academic issues with which these at-risk students are dealing. This may suggest that their perilous academic status may be related to unrealistic self-perceptions that could be addressed in academic counseling, an implication gleaned from the results of this study that will be addressed in Chapter 5.

Research Question Four asks: Overall, is there a significant difference between undeclared and declared students in their reported attitudes toward support services

(tutoring, advising, and counseling)? The majority of the survey items (Items 1 -8) address this research question, beginning with tutoring (Items 1 and 2); then advising (Items 3 and 4) and finally academic counseling (Items 5 and 6). The items state, first, that the student feels comfortable using the service, and second, that the service is helpful to the student. Items 7 and 8 group the three services together and states, respectively, that they are important to the student's academic progress, and that using them has helped the student achieve academic success. Students in both groups perceived advising as the most helpful of the support services, with 79.6% of undeclared students responding "Agree" or "Strongly Agree" to the statement, "Meeting with my advisor is helpful." Among the declared students, slightly over 80% responded "Agree" or "Strongly Agree" to the same statement.

Tutoring was also perceived as "useful" among both groups, but especially among the undeclared: over 75% responded "Agree" or "Strongly Agree" to that statement. Among the declared students, 68.3% responded "Agree" or "Strongly Agree" regarding tutoring. Although not found to be statistically significant due possibly in part to the small sample size of the study, these results may suggest trends that would be interesting to investigate in future research, a possibility that will be explored more fully in Chapter 5.

Counseling was also regarded as useful among both groups, but to a lesser degree than the other support services. Among the undeclared, 63.3% responded "Agree" or "Strongly Agree" while a substantial 32.7% responded "Neither Agree nor Disagree," which may indicate some confusion about the definition of counseling services among the students. Among the declared students, 61% responded "Agree" or "Strongly Agree"

regarding the usefulness of counseling services, while 36.6% responded, “Neither Agree nor Disagree,” again suggesting possible confusion, which will be discussed further in Chapter 5. However, the results may also indicate that respondents did not have a strong opinion one way or the other regarding counseling.

When the services were grouped together in survey Items 7 and 8, the responses to Item 7 may suggest that students believe that *in theory* using the services is important to their academic progress, but the responses to Item 8 may imply that the students may not have actually used them, or perhaps used only one, so far. Or their responses to these items may show that the students feel they have not yet achieved academic success at all. Seventy-seven percent of undeclared students and 80.5% of declared students responded “Agree” or “Strongly Agree” to the statement that they believe the services are important to their academic progress. Yet only 65.4% of undeclared and 60.9% of declared students responded “Agree” or “Strongly Agree” to the statement that they believe using the services already helped them achieve academic success. Both the declared and undeclared groups responded “Agree” or “Strongly Agree.” The implications of grouping the variables in the survey questions and the possible impact on the results will be discussed in Chapter 5.

Finally, most of students’ responses to feeling comfortable using each of the support services were consistent with their responses to feeling the services were useful, with two notable exceptions. Undeclared students were somewhat less comfortable using the tutoring services even though they deemed them useful. In addition, declared students were considerably less comfortable using advising services even though they

considered them useful as well. The implications of these findings will be discussed in Chapter 5.

Qualitative Research

In order to complete the mixed-methodology study, in addition to collecting data from the survey, the researcher conducted personal interviews with eight students to expand on several survey questions and to gain further insights into students' perceptions of support services and the potential role of those services in student persistence. Students were selected for the interview based primarily on a "Yes" response to Item 15 on the survey (see Appendix A), which asks if the student is willing to be interviewed to help the researcher better understand the student's responses to the survey.

One of the reasons for that lack of success was unresponsiveness on the part of the students contacted, but another reason involved a university-mandated change in tutoring policy, which went into effect during the study. The possible repercussions of this policy change on the study will be discussed in Chapter 5. Thus, the interview participants were not necessarily frequent users of tutoring, advising, or counseling services; furthermore, the researcher operated on the assumption that the participants had, in fact, used the services they claimed to have availed themselves of during the interview but did not verify actual usage. Since actual usage of support services was not verified, and only eight students were interviewed, the ability to generalize the results of this study may have been adversely affected.

The 18 open-ended interview items contained in the *Student Perception of Feeling Connected to the University* (see Appendix B) asked students to discuss their experiences, positive or negative, in using each of the support services—tutoring,

advising, and counseling—and to relate their perceptions of each of those services to feeling like the university was a caring institution. Finally, students were asked if using the services helped them feel like they belong at the university. When appropriate, the researcher asked follow-up questions in an effort to give the participants an opportunity to expound on or clarify their responses. In addition, the researcher observed participants' overall demeanor, inflections, and other affective factors to gain further insight into their responses. Thirty-five participants were contacted based on their survey responses to item 15, indicating a willingness to be interviewed. In the end, three undeclared and five declared students were interviewed.

Reporting the Qualitative Data

This section contains summaries of the interviews, focusing on participants' perceptions of tutoring, advising, and counseling, their intentions to continue at the university the following semester, their perceptions of the university as “caring” and their “sense of belonging” at the university, and finally, if that sense of belonging is related to their use of support services. Pseudonyms were used with all participants to preserve their anonymity. Participants were quoted when appropriate to emphasize a point or highlight a strong emotion. The interview responses were then applied in answer to the four research questions presented in the study.

It is helpful to note that students placed on academic warning or probation are assigned to an at-risk academic counselor. Declared majors are required to meet with the academic counselor; however, many continue to meet with their regular major advisor only. The undeclared majors on academic warning or probation are also assigned to an academic counselor as well as an advisor for undeclared students.

Descriptions of the Participants

The first participant was an undeclared major, “Geri,” who explained that she slipped into academic peril because her attitude toward her studies was “too casual.” She has earned 12 credits so far. Geri had a warm, outgoing personality and seemed to enjoy the personal contact she experienced during the interview. She had used tutoring, advising, and counseling during the semester and felt that they were helpful. Tutoring may have helped her feel more connected to the university, she surmised, but she was unsure if it actually did or to what extent. However, Geri did feel that tutoring sessions for her Italian course proved helpful and increased her confidence level in that class:

“When (my tutor) laid it out, I understood it like 10 times clearer.” Her advisor, however, was less helpful, often unavailable to meet when Geri had free time, and sometimes gave her “attitude.” Geri mentioned she particularly enjoyed meeting with her counselor, who gave her common-sense advice about getting out of academic jeopardy while motivating her at the same time. He told her the best way to get out of academic trouble was simply to “work (her) butt off.” She claimed she appreciated both his straightforwardness and caring and intends to take his advice seriously. Geri was very sure she would return to the university next semester and had every expectation of improving her academic standing and graduating.

“Jody,” the next participant, had quite a different outlook than Geri regarding the effectiveness of support services. Jody completed 10 credits and declared Sociology as her major but felt only her major advisor has been helpful to her since she began her studies at the university. That advisor not only helped her choose classes but also asked her about her performance in other classes and about her relationship with her roommate.

Jody seemed to appreciate the advisor's interest in her as a person very much and contrasted it to the rest of her experiences at the university, which, she felt, "let (her) down completely." Her main issue was the long delay in processing her documentation with the office of disabilities services, which has resulted in her inability to receive reasonable accommodations in her classes. Despite repeated requests on her part to expedite the processing of her documentation, Jody said she never received a response from the disabilities office. She felt this was a major factor in her being placed on academic warning. In addition to this difficulty, Jody claimed she was never contacted after she applied for a tutor and thus did not receive the support she needed, leading to a poor grade in the course. When asked if she followed up with the tutoring office when her request was not filled, Jody said she did not. In contrast to Geri, Jody felt the university was not a good fit and would most likely not return next semester. She appeared quite frustrated and somewhat eager to vent about how she felt the university had failed to meet her needs.

The third participant, "Danica," was a transfer student and undeclared major with 14 credits earned so far. She appeared quiet at first, but later in the interview seemed to grow more at ease articulating her experiences thus far at the university. She found tutors at the university to be caring as well as knowledgeable and claimed that using tutoring services helped her feel more "at home" and comfortable. She fell into academic difficulty after seriously underestimating the amount of time needed to prepare for her classes, particularly her French translation class. Danica was assigned an advisor but instead bonded with her academic counselor, who went beyond just handing out her PIN number for registration and asked her many questions about her study habits, interaction

with professors, and her social life. She found this type of personal interaction meaningful and helpful, especially as a transfer student who was anxious to feel like she belonged at the university. She said she plans to return to the university next semester and feels she fits in well.

The fourth participant, “Seth,” is a transfer student with 12 credits. He has declared a major in Athletic Training. After becoming seriously ill early in the semester at another college, Seth took a semester off to recuperate at home. He had used tutoring services during the semester and felt this helped him “get through freshman year in one piece” at the university although he realizes he still needs to raise his GPA. Seth met with his advisor and they plotted out his coursework for every semester until graduation. He said he enjoys a business-like relationship with his major advisor and prefers that it not go beyond discussing his progress and planning his classes. When asked if his advising experience made him feel that the university was a caring institution, he replied, “Well, she (the advisor) did not give me a hug,” but instead she “played it all out for me” in terms of keeping him on track for graduation. Seth feels he “absolutely” belongs at the university and attributes much of that feeling not to using support services, but rather to the helpfulness of the Athletic Training faculty and staff and being on the baseball team.

“Sarah,” the fifth participant, is a Speech Pathology major with 15 credits. She seemed to be a focused, self-directed student with high self-expectations, especially for a freshman in academic peril. She had positive experiences with tutoring; specifically, she claimed, “tutors were interested in your life experiences and getting to know you before the tutoring started.” This helped build her confidence in those classes. In addition, Sarah said her major advisor is also her professor: “I know her in class and out of class, so I’m

pretty comfortable.” Her advisor gave her other useful information like her midterm grades and a worked out a long-term plan for future classes. Sarah did not seem to need encouragement or advice about how to study or improve her grades—she thought her grades suffered because she was distracted and unprepared for the level of difficulty of her course work. She stressed that the assistance she received from the tutors and her advisor was “more academic than personal.” Sarah was certain she would return to the university next semester.

“Shantelle” was the sixth participant and had completed 10 credits. A Business Management major, she used tutoring for two subjects and said it was a positive aspect of her experience at the university. She especially appreciated tutors’ suggestions on “how to study better,” which have helped her improve her test grades. In addition, tutors “take the time to explain it to you in a different way that makes sense.” She was an extremely pleasant person who at times seemed to want to give the desired responses in order to please the researcher. She also appeared to enjoy interacting on both a professional and personal level with her tutors and advisor. Her academic troubles occurred when she missed a number of classes due to illness and other personal issues and did not make up the tests and assignments. Despite her status, Shantelle claimed she has a great relationship with her major advisor, who is also her professor. He asks about her personal life as well as academics whenever they meet. She expressed that it was important to her to know that the advisor actually cared for her as a person as well as an advisee. According to her, the fact that she and her advisor had cultivated this close and trusting relationship indicated that the university was a caring institution and increased

her feelings of belonging there. Shantelle proclaimed with confidence that she is “definitely going to graduate from here.”

The seventh participant, “Olivia,” was a commuter student with 10 credits who was majoring in Biotechnology. She appeared confident and committed to do what was necessary to improve her academic status. Her experiences with tutoring have been mixed; she claimed it was helpful for one of her courses, but there were problems with another course because occasionally the tutor would not show up for sessions, and this contributed to her poor final grade in the class. Tutors were more helpful with explaining course content than with improving her study skills. As a commuter, Olivia felt that tutoring may have been beneficial since it gave her “the chance to interact with more people.” She expressed her appreciation to the university for offering tutoring at no cost to students and said this proved the university “cared about the students.” Meetings with her advisor were helpful and positive despite challenges in accommodating the advisor’s schedule. The advisor provided useful information and got to know her personally to some degree. However, she believed it was beneficial to practice a certain amount of self-reliance in terms of being familiar with her major requirements. Olivia was not certain that she would return to the university next semester, not because she lacked a feeling of belonging, she insisted, but because she was not sure if the university’s Biotechnology program was a good fit for her goals.

The eighth and final participant, “Juan,” was a commuter and undeclared major who had an interest in Business Management. He appeared slightly older than a traditional-age student and mentioned he had worked in construction before deciding to go to college. He had completed nine credits and had fallen into academic difficulty, he

claimed, because he encountered a financial crisis mid-semester and had to work long hours while attending school full-time. In fact, he was certain he would not be returning to the university in the fall because his financial circumstances remained tenuous. He told me he had a “hard life” in the past and even faced homelessness at one point. Juan had strong beliefs about using support services and about being a student in general, perhaps due to his financial situation and past life experiences. Specifically, he believed “what you put in is what you get out” of the college experience. He felt it was unwise to rely on tutoring or advising to “get you through;” furthermore, he refused to say tutoring “gave” him anything; even though he attended several tutoring sessions, the grade he received in his Business Management course was the one he earned on his own, and he admitted it would have been higher if he had submitted more homework assignments, regardless of tutoring. Juan felt similarly about his advisor—he met with her on several occasions, but felt it was his responsibility to keep track of his general education requirements and to provide his own motivation for earning good grades. Juan seemed unconcerned with the notion of “belonging” at the university; instead, he believes higher education is a privilege and felt many of his fellow students squandered their opportunities at the university. He remained hopeful that he would return once his financial situation stabilized.

The diversity of interview participants in terms of their ages, backgrounds, experiences thus far in college, as well as economic and health status, was notable. In addition, the participants expressed wide-ranging academic attitudes and expectations. However, despite this diversity, having interviewed only eight students makes it difficult

to generalize their responses to all undeclared and declared at-risk students attending the university. Furthermore, generalization beyond the university is not possible.

The Research Questions

The qualitative portion of this mixed-methodology study used interviews to provide depth and gain further insights into the quantitative analysis of the survey responses. Participants' perceptions in response to the interview questions were considered in the broader context of the literature as well as the quantitative results of this study in addressing the research questions.

Research Question One: Is there a relationship between perception of using support services and reported persistence in college among second-semester freshmen who are at-risk, undeclared majors?

First of all, having only three undeclared participants made it difficult for the researcher to gain insights regarding a link between support services usage and persistence in so small a sample. Instead, the researcher gleaned impressions about how the participants viewed support services and learned whether or not the participants intended to return the following semester but found no definitive link between those two factors. The three undeclared participants Geri, Danica, and Juan all claimed to have used one or more of the support services. Interestingly, the three undeclared participants each had a unique perspective: Geri was a traditional-age second-semester freshman while Danica had transferred to the university after a semester at a different college. Meanwhile, Juan was slightly older than traditional-age and had work experience before attending college. This variety of student experience among so small a sample speaks to the difficulty in pigeonholing contemporary college populations in search of patterns of

behavior or generalizations regarding attitude. Geri said she used tutoring for her Italian class and had met with her advisor as well as her academic counselor. She expressed certainty that she would return next semester. Danica used tutoring services as well and met with her academic counselor, while Juan attended tutoring and met with an advisor. Each participant reported varying preferences and degrees of satisfaction regarding the services they used. Two out of the three undeclared participants planned to return next semester; however, none of the participants seemed to directly relate their decision about returning or not to using the services, even if their experiences with the services were positive. In fact, Juan's decision not to return was totally unrelated to academic concerns of any kind. Thus, while the undeclared participants made use of and, in some cases, felt they benefitted from support services in some way, using them seemed to have no direct relation to their intention to return to the university. This result is consistent with that of the quantitative analysis in answer to Research Question One. During the interviews, it appeared to be more likely that undeclared students may have felt a feeling of connection with the university by using support services to a greater degree than their declared counterparts. This possibility will be discussed in more depth in Chapter 5.

Research Question Two: Do at-risk, undeclared students report feeling less connected to the university than declared students?

In considering the interview responses of the undeclared participants, the researcher again kept in mind the small size and diverse nature of the sample in answering the research question. The three undeclared participants, Geri, Danica, and Juan, expressed varying degrees of "connectedness" to the university, based on their responses to the interview questions (see Appendix B), particularly Question 17: How

strong is your sense of belonging at the university? and Question 18: Has your usage of one or more of the support services mentioned above contributed to your sense of belonging at the university?

For example, Geri liked the fact that her academic counselor was “really positive” and encouraged her even though Geri performed poorly during her first semester. She provided examples of how tutoring and counseling (to a greater degree than advising) had, in fact, contributed to her feeling of belonging at the university. While Geri clarified that tutoring and counseling “didn’t make a huge difference” in her feeling like she belonged, using the services helped her feel more at ease. Danica claimed tutoring at the university compared much more favorably than at her previous college because “the tutors show you they care and want you to succeed.” She said she did experience a sense of belonging through her tutoring and academic counseling experiences. Meanwhile, Juan, who used both tutoring and advising, did not feel especially connected to the university, and challenged the importance of attaining that feeling in the larger context of getting an education. Thus, two of the undeclared participants expressed feeling a sense of connectedness while one did not even seek it, much less experience it, even though he used support services.

The five declared participants, Jody, Seth, Sarah, Shantelle, and Olivia also expressed a wide range of experiences with feeling connected to the university. For example, Jody felt quite disconnected from the university from the start because she was not able to receive the classroom accommodations she felt she qualified for and desperately needed to succeed. In terms of tutoring, Jody felt she was not supported because her request was never processed. Seth felt a strong sense of connection more

because of his association with faculty and staff in his major field and by being a member of the baseball team than because of his use of tutoring and advising services. Sarah specified that she did indeed feel like she belonged at the university and was determined to excel in her major field of Speech Pathology. The support services she took advantage of, tutoring and advising, helped her more in an academic sense than in terms of connectedness. When asked if using the services helped her feel like she belonged, she replied, “Not really—maybe a little—more the advising than the tutoring.”

Shantelle also expressed feeling connected to the university. She had used tutoring and advising services, and even though she benefitted from tutoring, the relationship she forged with her advisor was a greater factor in helping her feel connected to the university. Finally, Olivia claimed to feel a connection as well, even though she is considering leaving the university in search of a Biotechnology program that better matches her career goals. She partook of tutoring and advising services and felt that tutoring contributed “a little” to her feelings of belonging while her advising sessions contributed slightly more to that feeling because “you get to talk one-on-one and get individual attention.” But she did not feel either tutoring or advising contributed significantly to her feeling connected to the university.

With the exception of Jody, all the declared participants expressed feeling a connection to the university for a variety of reasons. Seth felt supported by the Athletic Training faculty and the baseball team. Sarah, Shantelle, and Olivia also stated that they felt they belonged at the university and all mentioned advising as contributing more to that feeling than tutoring. Discounting the discrepancy in sample sizes, overall, the feeling of being connected to the university seemed to be strong among both the

undeclared and declared participants. Thus, like the quantitative analysis, it would appear that, in answer to Research Question Two, based on the interviews, there is no significant difference in the overall feeling of connection to the university between declared and undeclared students. Therefore, as was the case with the quantitative findings, generalizing these specific results to the larger university population is not indicated. Further, the sources of the feelings of belonging seemed to differ in each group among the interview participants, possibly shedding light on what factors influence sense of belonging. In the undeclared group, participants cited tutoring as more of a factor in feeling connected than in the declared group. Two of the three undeclared participants mentioned their academic counselors as being a source of connection more so than their advisors. This finding will be discussed in more detail in Chapter 5.

Research Question Three: Do at-risk, undeclared students have significantly lower levels of reported persistence in college when compared to declared majors?

Participants who were interviewed were asked if they intended to return to the university as an ancillary or follow-up question toward the conclusion of the interview if the subject had not arisen earlier in the conversation in connection with the questions about “belonging.” With the exception of one undeclared and two declared participants, the participants generally expressed confidence that they would be returning to the university the following semester despite the fact that they had encountered some degree of academic difficulty and were currently on academic warning or probation. For example, Geri (who was undeclared) expressed confidence that she would remain at the university until graduation because, along with having made friends on campus, the professors and staff are welcoming and “they are good people to talk to,” helping her feel

at home. Danica, undeclared and a transfer student, also felt strongly that the university was a better fit than the one she attended the previous semester. She was certain she would not only return the following semester but would graduate from the university. Juan, the non-traditional-age student, was the one undeclared student who was not returning due to financial circumstances unrelated to his feelings of belonging or academic status.

Among the declared group, Seth, Sarah, and Shantelle expressed some degree of certainty that they would return to the university and eventually graduate. However, Jody was disenchanted with the university and was sure she would leave for reasons having to do with delays in processing her disability documentation; she also had an issue with her application for tutoring. Olivia, on the other hand, seemed quite content with support services and campus life in general but considered leaving the university for programmatic reasons having to do with her Biotechnology major. Thus, from the interviews conducted it is likely that undeclared students do *not* have significantly lower levels of persistence when compared to declared students. As mentioned earlier, the undeclared sample was significantly smaller than the declared, making it more difficult to detect attitudinal patterns and themes within that group. In addition, analysis of the interview responses of the non-persisting participants did not produce tangible themes but instead shed light on the disparate nature of their reasons for leaving. The students who said they were leaving the college each had a unique reason that had little or nothing to do with support services. Even Jody, who mentioned having a problem with tutoring services, seemed to have made up her mind about the university not being a good fit for her before the tutoring incident occurred—that incident only helped cement her overall

impression of the university as “uncaring.” Therefore, the information and impressions gleaned from the interviews seems to support the quantitative analysis results in answer to this research question.

Research Question Four: Overall, is there a significant difference between undeclared and declared students in their reported attitudes toward support services (tutoring, advising and counseling)?

In response to interview questions 1 - 16 of the *Student Perceptions of Feeling Connected to the University Interview Questions* (see Appendix B), all of the participants regardless of major status utilized at least one of the support services (tutoring, advising, and counseling). Of those students who had used tutoring, all found it useful to varying degrees. Geri, Danica, Sarah, and Olivia seemed to credit tutoring with helping them academically and also helping them feel in at least in a small way connected to the university, even if they had minor criticisms of the tutoring experience. All the participants utilized advising services and most had positive impressions of the experience. There were no blatantly negative references to advising usage except that Geri claimed to prefer interacting with her counselor and Juan indicated that his advising experience was “neutral,” he is capable of “self-advising,” and would prefer to do it that way if he returns to the university in the future. Only two students, Geri and Danica, both undeclared, had met with an academic counselor. Both seemed to feel that they had more of a personal relationship with their counselor than with their tutor or advisor, and both expressed a preference for meeting with their counselor because the counselor discussed personal and social issues as well as academic ones. For example, Geri said “Dr. _ is always available to meet with me, his door is open, and if he can’t, then we can look at

the Facebook page for more help.” Danica felt her counselor made her feel positive about herself: “I stop by the office just to say ‘hi’ or a quick check-in. I even told my younger brother to go see her even though she is not his advisor because she is just good to talk to.” Again, the interviews reveal that all the participants utilized support services to some degree and thus, there was no significant difference between usage by undeclared and declared students. This interpretation of the interview responses is consistent with the corresponding quantitative analysis of this research question.

Summary of Findings of Quantitative and Qualitative Research

Analysis of the data from the *Survey of Student Perception of Support Services* collected from 90 students and the 8 interviews of students based on the *Student Perceptions of Feeling Connected to the University* interview questions provided answers to the four research questions posed in this study. The study was conducted to investigate the relationship between support services usage and persistence among academically at-risk, second-semester freshmen. In addition, the study examined the relationship between support services and promoting a sense of belonging or connection to the university. Finally, the study compared two subgroups of at-risk students, undeclared and declared, in terms of their utilization of support services, overall persistence, and feelings of belonging.

In answer to the first research question regarding a relationship between support services and persistence among the undeclared group members, the results of the quantitative analysis showed that of the 49 undeclared students, 41 either agreed or strongly agreed that they would return to the university the following semester. However, when asked to attribute their decision to return to using support services, only

23 either agreed or strongly agreed. It would appear that there was no significant relationship between support services usage and overall persistence. The three undeclared interview participants indicated that they had all used support services to varying degrees, but only two of them had intentions of returning to the university the following semester. The same two participants credited support services to a limited degree with helping them feel connected to the university, but fell short of relating the usage of the services with their decision to return.

The second research question asked if undeclared students felt less connected to the university than their declared counterparts. The results of the quantitative analysis indicated there was no significant difference between the two groups on the “Belonging” variable. Likewise, the interview responses to the four corresponding survey items regarding feeling connected to the university suggested that undeclared students did not necessarily feel less connected to the university. Among the undeclared interview participants, two out of the three felt connected to the university, while among the five declared participants, four out of the five reported feeling connected. Considering the small sample size and the varied experiences among the individual interview participants regarding use of support services, it appears that undeclared and declared students experienced roughly similar degrees of a sense of belonging.

The third research question compared levels of persistence between the undeclared and declared groups. The quantitative analysis showed no significant difference between the means of the survey responses to Item 9 regarding students’ intention to return to the university the following semester. The interview responses revealed that, of the three undeclared participants, one student was certain he would not

return, primarily for financial reasons. Of the declared participants, two did not intend to return, one because of not being able to obtain reasonable accommodations for her learning disability, and the other because of concerns over the program of coursework in her major. The reasons for leaving among both groups were varied and for the most part largely unrelated to support services or feelings of belonging. Since the majority of students in both groups reported that they intended to return, there appeared to be no significant difference in their levels of persistence.

The fourth and final research questions asked if there was a significant difference between undeclared and declared students in their reported comfort with and sense of helpfulness of tutoring, advising, and counseling services. Once again, the quantitative analysis of the responses to the Items 1 through 8 regarding support services indicated there was no significant difference between the means of the responses in both groups. Meanwhile, the responses to the interview questions pertaining to using the services (Items 1-17) showed that every participant in both groups claimed to have used at least one of the support services; in fact, most had claimed to use two services and two students had utilized all three services. Thus, there appeared to be no significant difference in usage between the undeclared and declared groups. A discussion of implications and areas for further research will be included in Chapter 5.

The issue of *belonging* was a focal point of the study because research by Tinto (2006) and others has shown it is a vital piece of the complex retention puzzle. Therefore, gleaning any insight into students' perceptions of belonging and the relationship between belonging and undeclared status or academic standing is potentially valuable. In response to Survey Item 12, which states, "Feeling like I belong is important

to me,” a total of 63% of undeclared students responded either “Agree” or “Strongly Agree” while a total of 87.7% of declared students responded either “Agree” or “Strongly Agree.” In other words, the distribution of responses was more widespread among the undeclared students, which may be interpreted either as that group having less of a need for belonging or possibly reflecting the fact that undeclared students experience belonging to a lesser degree than declared students, and thus they may conclude it must not be of utmost importance. These results will be discussed at greater length in Chapter 5.

In addition to the survey item regarding the importance of feeling like students belong, the subsequent survey item addressed the sense of belonging at the university in particular. Item 13 states: “I believe I belong at the university.” Over 70% of respondents in both the undeclared and declared groups either agreed or strongly agreed with the statement, indicating that there was little difference in the perception that the university was a good fit for most. It is possible that the declared responses to this item were not as strong in agreement as those responses to Item 12, suggesting that while feeling like they belong is extremely important, the declared students may perceive that the university is somewhat lacking in its efforts to be a caring institution. This possibility will be discussed in Chapter 5.

Belongingness was also addressed in Item 14 on the survey, as it contains the key statement that links support services usage at the university with students’ sense of belonging: “Using support services offered by the university contributes to my sense of belonging here.” The responses from both the declared and undeclared group show that students did feel that using the services contributed to that sense of belonging to some

extent. Once again, the declared group expressed a stronger affirmation of that statement since a total of 68.2% of them responded “Agree” or “Strongly Agree.” In contrast, the percentage of undeclared students who responded “Agree” was the same as those who “Neither Agree or Disagree” (34%). This result may indicate a slightly greater sense of isolation among the undeclared and will be discussed further in Chapter 5.

The study also addressed student perceptions of their intentions to return to the university the subsequent semester and examined if undeclared status adversely affected intentions to return. For the purposes of this study, that intention was referred to as *persistence*. Research Question Three asks: Do at-risk, undeclared students have significantly lower levels of reported persistence in college when compared to declared majors? Survey Item 9 states, “I intend to return to the university next semester.” Both the undeclared and declared groups responded with a resounding “Yes,” with 83.7% answering “Agree” or “Strongly Agree.” The declared group responded with a total of 90.3% who either “Agree” or “Strongly Agree” with the statement that they intend to return. These results show an extremely high degree of intention to persist despite the academic issues these at-risk students are dealing with. This may suggest that their perilous academic status may be related to unrealistic self-perceptions that could be addressed in academic counseling, an implication gleaned from the results of this study that will be addressed in Chapter 5.

CHAPTER 5

FINDINGS AND IMPLICATIONS

This study examined the relationship between using support services and persistence of second-semester, undeclared majors who are academically at-risk. In addition, “sense of belonging” was examined to see if any relationship existed between it and persistence. This final chapter of the dissertation restates the research problem, reviews the methodology, summarizes the results, and discusses their implications.

Research Problem

As detailed in Chapter e, the problem examined in this study concerns the persistence of undeclared students, who may be at greater risk of leaving college because they do not enjoy the benefits of having a departmental advisor to help them develop a comprehensive academic plan of study, nor do they benefit from the opportunity to bond with a faculty member from their field of interest. According to data collected in 2004 from the Office of Institutional Effectiveness at the university, the rate of persistence for undeclared students after two years was considerably lower than that of declared students. Makinen, Olkinoura, and Lonka (2004) found in their study of “non-committed” students (the term used for the undeclared in Finland, where the study was conducted) that having no clear idea of why they are in college or what their academic or career goals are puts them at higher risk of failing or dropping out; in addition, their undeclared status prevents them from immediately becoming part of a close-knit community of learning. This possible lack of connection early on in the college experience may delay or impair the undeclared student’s transition to college; furthermore, the student may in fact miss out on the social and academic integration that

contact with a major advisor may provide. This study examined the relationship between using support services (tutoring, advising, and counseling) and persistence as well as using those services and promoting a sense of belonging among at-risk students.

Methodology

In order to explore this problem, surveys were distributed by campus mail and email during the spring semester to second-semester students in academic jeopardy. Of the 55 undeclared and 160 declared students who received the surveys, 49 undeclared and 41 declared students completed and returned them to the researcher. Beginning about two weeks after the survey was distributed, three undeclared and five declared students were interviewed to ascertain more detailed information regarding their perceptions of support services as well as to give them an opportunity to expand on some of their responses to questions on the survey. The students were chosen based on their willingness to be interviewed and self-reported usage of support services.

Results

The analysis of the quantitative data showed that there was no significant relationship between usage of support services and persistence among the undeclared students. Furthermore, the undeclared students did not necessarily feel less connected to the university than the declared students. The data analysis also found no significant difference in the rates of persistence of undeclared and declared students, which supports Cuseo's (2005) research similarly showing no significant difference in attrition rates between undeclared and declared students. Finally, there was no significant difference found in support services usage among undeclared and declared students. The

quantitative results show the undeclared students appear to be no more at-risk of leaving college than their declared counterparts.

The qualitative analysis of the interviews showed that overall there was no significant relationship between support services usage and persistence of undeclared students. All of the undeclared students claimed to have used two of the support services, yet none directly attributed that usage to influencing their decision to return to the university. The one undeclared student who said he was leaving the university cited financial status as the sole reason.

Interview participants in both the undeclared and declared groups felt that “sense of belonging” was important to them, but there was no significant difference in the level of “connectedness” between the undeclared and declared groups. Two of the three undeclared students felt a reasonably strong sense of connection and felt that they did in fact “belong” at the university. The third undeclared student did not give much credence to the concept of belonging and claimed he just wanted to get his degree so he could support himself and eventually prosper. Among the declared students, most felt a certain sense of belonging.

There was no significant difference in persistence among the undeclared and declared interview participants. The sole undeclared student who intended to drop out was besieged with financial issues, while the two declared students who were leaving cited reasons specific to their academic needs: one was a student with a learning disability who had not received the classroom accommodations she said she needed and was entitled to; and the other student was satisfied at the university but felt she could receive a better course of study for her major at another university. Thus, there was no

discernible pattern in either group regarding reasons for leaving the university. Most of the students interviewed were sure they would return to the university the following semester.

Finally, there was no significant difference between students in either group in terms of using the three support services: tutoring; advising; and, counseling. All the students interviewed claimed to have used two of the services, in most cases, tutoring and advising. Most students expressed their high regard for advising as a useful service. However, the two students who interacted with their counselor stressed that they found counseling the most useful support service. These perceptions reflect a somewhat higher level of satisfaction with those services than those reported by Astin (1993), who found that less than 50% of undergraduates reported feeling “Satisfied” or “Very Satisfied” with advising and counseling services.

Interpretation of Results

Before interpreting the results of the study, it is important to first consider several factors that played a key role in the findings. First, it must be noted that the survey responses were based on students’ self-reported usage of support services and were not verified by the researcher. Second, for the purposes of this study, *persistence* was defined as the intention on the part of the student to return to the university the following semester. In addition, survey respondents may have been confused over the term “counseling” as one of the support services they may have used; it referred to academic counseling offered by specific programs and not psychological counseling services.

Next, the size of the sample was relatively small, especially the group who participated in interviews. Therefore, it is uncertain whether non-significant trends in the

data might have reached statistical significance. Ninety surveys were returned out of 216 originally distributed among undeclared and declared second-semester freshmen who were in academic peril, and of the 90 respondents, 8 were interviewed. Furthermore, it is not appropriate to assume that these results can be applied to the general population or a similar population at another university.

It was the goal of the researcher to examine the relationship between persistence and using support services on at-risk populations, one group consisting of undeclared, and the other, declared majors, and conducted at a university with a relatively large number of undeclared students. The researcher also sought to investigate whether using support services by at-risk students promoted a sense of belonging among students, which Tinto (1993) and other retention researchers purport to be a crucial component of students' decisions to remain at a college.

The results of this study did not indicate significant impact of usage of support services upon the persistence of undeclared students. In other words, the results did not supply evidence that using support services had a direct impact on student persistence. Rather, the results suggest, if nothing else, that further research is needed to investigate the relationship between using support services and persistence. In addition, demonstrating a relationship between usage of support services and students' sense of belonging to the university proved equally elusive, according to the quantitative and qualitative analyses. While students took advantage of support services, particularly tutoring and advising, and found them helpful generally, they did not necessarily tie that usage to feelings of belonging or consider them a major contributing factor to persistence.

There were other factors to consider in interpreting these results. First, unforeseeable changes in tutoring policy took place during the time the study was conducted that may have affected student perception of tutoring services. For budgetary reasons due to funding cutbacks on the state level, restrictions on the amount of tutoring students could receive were enforced while the study was in progress. During the interviews, some students mentioned the change in tutoring policy when discussing their experiences with tutoring. While they did not specifically state that the restrictions on tutoring affected their perceptions of it, it is possible that they felt tutoring was not as accessible as before and thus may have felt less “comfortable” (see Appendix A, Survey Item 1) availing themselves of the service. The restrictions also made it almost impossible for the researcher to determine which students could be considered frequent users of tutoring since all usage (with certain exceptions) was limited to one hour per week per subject.

Another factor that possibly impacted results involved wording of several items on the *Survey of Student Perceptions of Support Services, Persistence and Belongingness* Survey (see Appendix A). For example, Items 7 and 8 group the three support services together in stating that the student’s experience in using support services (tutoring, advising, and counseling) had played a part in their academic success. Further, Item 10 again groups the three services together in stating that they influenced the student’s decision to return to the university in the fall. Grouping the services together in those survey items may have clouded the researcher’s ability to isolate a particular service that students perceived as playing a more significant part in their academic success as well as their decision to return. This information would have been useful in determining the

perceived effectiveness of each service and the implications for improving those services that were perceived as less effective.

It should be noted that the study took place at a public university in the Northeastern United States and involved students who were both undeclared and declared majors in academic jeopardy. There are regional differences in curriculum as well as definitions of academic jeopardy that vary from institution to institution; in fact, some universities do not characterize students as “undeclared”—they are placed and remain in Liberal Studies or a similar general studies field until they declare a major. For the purposes of this study, *academic jeopardy* meant having a GPA under 2.0. Many other variations in policies and populations exist among institutions of higher learning, making it difficult to generalize the results of this study beyond the campus where it was conducted.

Research conducted by Pascarella and Terenzini (2005) suggests that comprehensive support programs increase persistence among students in general. However, the results of this study did not support the hypothesis that using support services made a significant difference in persistence among the undeclared students as posed in Research Question One. The survey and interview responses seemed to indicate a fair degree of certainty that most students intended to return to the university the following semester but fewer were willing to connect the decision to return with using support services. The lack of evidence connecting the support services usage to persistence may imply that students were reluctant to attribute their decision to persist with a supportive figure, such as a tutor, advisor, or counselor. As Downing (2011) and Tinto (1993) have suggested, inexperienced students may lack the skills necessary to

make a successful transition from high school to college, one of which is to become more “interdependent.” Interdependence requires students to “develop mutually supportive relationships” (Downing, p. 179), and participate actively in the give-and-take of the learning process. Thus, students’ reluctance to give credit to the people who may have helped them persist may be indicative of their developmental or transitional status as college students—they are not yet able to appreciate the extent to which others may contribute to their experience and success.

Another barrier to achieving academic and social integration in college involves students’ mindset theory, or how students view their ability for growth and change (Dweck, 2006). Incoming college students may arrive on campus with a *fixed* mindset, feeling that they are born with a preset capacity for success and academic achievement and view any failure or setback as verification of their limitations. Students with this mindset may have a more difficult transition to college because they need to experience success right away in the form of good grades without necessarily putting forth the consistent effort needed to achieve it (Dweck, 2000). If they experience failure, they are more likely to simply give up rather than try another method, seek assistance, or expend more effort.

On the other hand, some students begin college with a *growth* mindset and see themselves as having an immeasurable capacity for success, viewing struggles and even failure as a natural part of the incremental learning process. These students are more apt to persist partly because they try various strategies in the belief that they will eventually succeed.

Dweck (2006) measured incoming college freshmen's mindsets at the start of their first chemistry course and monitored their progress during the semester. Her study revealed that students with a growth mindset earned higher test grades and remained positive and perseverant. In contrast, those with a fixed mindset got lower grades and kept using the same study techniques even when they were ineffective.

In regards to this study, the survey respondents, having encountered academic difficulties early in their college careers, could either attribute their lack of success during their first semester as a challenge to overcome, or they may view it as proof that their efforts are futile and they are just not destined for success in college. Thus, those respondents with a fixed mindset may or may not have used support services, but regardless, they did not really believe that the services made a significant difference in their success since they perceive that their capacity for learning and growth is predetermined. This may be a possible interpretation of the lack of significance found in the relationship between usage of services, intention to return, and feelings of belonging at the university. It would be interesting and informative for further research to include the mindset assessment tool developed by Dweck, (2006) to determine if there is a relationship, for example, between fixed mindset and low GPA, persistence, and usage of support services.

Finally, undeclared and declared students who find themselves in academic jeopardy are assigned to a counselor specifically designated to assist at-risk students by, among other strategies, helping them devise an action plan for improvement. Interview participants who were undeclared expressed a slightly higher degree of feeling connected to the university by using the support services; specifically, tutoring and counseling were

cited by the undeclared as contributing slightly more to the feeling of belonging than advising. It is possible that the counselor serves as a surrogate for the major advisor, who is not available to the undeclared. However, given the small sample size of the interview participants, no definitive conclusions can be drawn regarding undeclared students' preferences among the services. The same is true of the survey results—the findings revealed there was no significant relationship between using support services and sense of belonging among the undeclared. It is plausible that the wording of Survey Item 10 (see Appendix A), which groups the three services together in stating that they contributed to the student's sense of belonging, obscured the researcher's ability to determine if one service was more important than another in terms of promoting a sense of belonging. The responses may have been more revealing had the item been split into three questions, isolating each service and enabling the respondents to specify which service they felt most comfortable using, was most effective, influenced their decision to return to the university, and contributed most to a sense of belonging.

To conclude, this study compared two populations that were academically at-risk due to having GPAs below 2.0, but in addition to being in academic jeopardy, the undeclared group may be considered at even greater risk of attrition or failure due to not having chosen a major. As discussed in Chapter 2 of this study, Leppel (2001) and other researchers have found undeclared students to be at increased risk of dropping out of college because, among other factors, they do not have a major advisor and may not develop academic and social ties to the college as readily as declared majors. Thus, using a sample which could be considered doubly at-risk for attrition may have affected the results in that those students were even less prepared and had even greater challenges in

their transition to college life than their declared counterparts. In addition, the specific issues and challenges faced by undeclared students may have been isolated and highlighted to a greater degree if the additional risk factor of having a low GPA had been eliminated from the study.

The original intention of the researcher was to clearly illuminate the relationship between support services usage, persistence, and academic and social integration by studying the most at-risk population. However, in retrospect, it may have been more enlightening to have compared undeclared and declared, second-semester freshmen who were *not* in academic jeopardy as both groups would have been on a more level playing field. Although less ambitious, it may have been more informative to first explore the relationship between perceptions of support services, persistence and sense of belonging using a random sampling of declared and undeclared freshmen, regardless of academic standing. Additional data could then be gleaned regarding academic standing to examine whether low GPA affected students perceptions to a greater degree than undeclared status.

Implications and Recommendations

In general, the inconclusive findings of this study, which sought to uncover a relationship between perception of support services usage and persistence and sense of belonging among at-risk students, point to replicating the study with some modifications. A larger sample may have shown a significant relationship between support services and retention as well as sense of belonging. In addition, as previously stated, using undeclared and declared students who are not in academic jeopardy may also result in

clarifying that relationship and illuminating the specific challenges faced by undeclared majors.

In replicating the study, certain items on the Student Survey (see Appendix A) should be re-organized to better illuminate specific support services and their effectiveness, impact on retention, and promoting a sense of belonging. For example, Items 7 through 10 should be divided into three additional sub-categories. Thus, Item 7 would be divided into three separate items and read as follows: *7a. I believe utilizing tutoring is important to my academic progress; 7b. I believe advising is important to my academic progress; 7c. I believe counseling is important to my academic progress.* The same would apply to Items 8, 9, and 10. In addition, actual frequency of usage of the services should be recorded in future research to explore the relationship between the number of actual visits to a tutor, advisor, or counselor, and persistence and belongingness as well as student perceptions of the accessibility and usefulness of the services. In the same vein, it would also be informative if, in future research, actual persistence of the subjects was tracked to see if students' reported *intention* to return the following semester resulted in actual reenrollment.

In terms of examining belongingness and feeling a connection to the institution, many of the survey respondents claimed they felt like they belonged. However, those students who were interviewed were less willing to describe the university as caring. It is possible that recent university measures taken in response to the economic recession and reductions in funding from the state influenced students' perceptions; as mentioned above, tutoring services were reduced during the semester that the study was conducted, and several student and faculty rallies were held on campus to protest the cuts in that and

other programs. Certainly the dramatic changes in campus programs and policies that occurred in the midst of the study may well have colored responses and provide strong support to the notion that the study should be replicated at a different campus during a period of projected stability.

In further exploring the concept of a sense of belonging at, or feeling connected to, the university, Research Question Two, in particular, asks if undeclared students feel less connected to the university than declared students. While the overall results of both the quantitative and qualitative aspects of the study indicated there was no significant difference between the undeclared and declared students' feeling a sense of belonging at the university, certain aspects of the results merit further examination. Although not statistically significant, the survey responses regarding "feeling like I belong" at the university may represent a pattern among the undeclared students that belongingness was not quite as important to them as it was to the declared. One interpretation of this pattern is that undeclared students do not form a connection to the university as quickly as those students who meet with a major advisor, so they may underestimate the value of feeling connected because they have not had as much opportunity to develop that feeling. This is supported by research examining the influence of major on persistence of White and African-American freshmen at public institutions in the Midwest (St. John, et al., 2004), which found that being undeclared had a significant adverse effect on the persistence of White students but had no significant effect on the persistence of African-Americans, suggesting that the non-persisting White students had either enrolled with a lower level of "institutional commitment" or had not initially experienced academic and social integration at their particular institution. Although race was not examined in the present

study, the research by St John, et al. (2004) is nonetheless pertinent because it suggests that some students may enroll without a clear idea of why they are in college or why they chose a particular college. Further research may reveal if support services, such as early, intrusive advising, can help these students establish a connection to the institution as well as further explore how undeclared status affects feeling of belonging.

At the same time, in response to a subsequent item about belonging, undeclared students were equally sure that they belonged at the university as the declared students. This may indicate that undeclared students are as enthusiastic about feeling like they fit in at the university as declared students despite their lack of a major advisor. So they may feel like they belong while possibly underestimating the value of that sense of belonging. One implication may be that a greater effort is needed on the part of the university to create relationships among undeclared students by employing more advisors dedicated to that population alone, using peer mentoring, and enacting policies that strongly encourage undeclared students to declare a major by the end of their sophomore year. Again, further research exploring the attitude of undeclared students may shed light on the need for modifying existing policies regarding declaring a major.

The results show a greater percentage of declared students agreed with the statement in Item 14 that using support services helped them feel like they belonged as opposed to undeclared students. While this phenomenon was not statistically significant, it may illustrate a characteristic of Tinto's (1993, 2006) research, which concludes that using support services early in the college experience, among other factors, may help create that critical bond with the university that eventually results in persistence.

In terms of support services' impact on academic success, the undeclared group's responses to Survey Item 8 (see Appendix A), which states that the support services have already helped the student achieve academic success, indicate that over 65% either agreed or strongly agreed with that statement. The implications of this result are of interest on a number of levels. First, it would appear that undeclared students are cognizant of the effectiveness of using support services, yet they found themselves in academic jeopardy at the start of the second semester of their freshman year. This may reveal a realization by the undeclared that they should have availed themselves of the services to a greater degree during the prior semester. Henceforth, it could also represent a tacit commitment to utilize the services more regularly. In any case, the responses would seem to suggest that support services are recognized as an important component of academic success by even the most inexperienced members of the campus community and thus should remain available and accessible. In fact, research by Kuh, et al. (2005) found that providing comprehensive, accessible support services was deemed a "best practice" among "educationally effective" colleges showcased in his study.

To shed further light on the role of support services in the academic community, it must be recognized that both the undeclared and declared interview participants reported that they availed themselves of at least one of the support services—most had utilized more than one service. Although the reported usage was not verified by the researcher, the interview participants provided enough detail about their tutors and advisors and their respective sessions to suggest they were being truthful. It was apparent to the researcher that the students felt the services were valuable, albeit to varying degrees. In terms of the specific support services examined in the study, although not statistically significant, the

responses from undeclared students may infer that they are slightly more reliant on their tutors than their declared counterparts; this pattern may merit further consideration in future studies. If new research supports such measures, it may be worthwhile for the university to consider modifying tutoring policies to allow undeclared students to self-identify as such on the application for tutoring and then be given priority assignments to tutors and additional tutoring sessions. Thus, undeclared students would receive the same type of additional support as do members of other at-risk groups in the campus community, such as Student Support Services, STAR Program, and those with documented learning disabilities.

As far as counseling is concerned, although there may have been some confusion among the survey respondents about the definition of counseling, the interview participants who had utilized counseling cited that it was a valuable service and helped them feel connected to the university. Pascarella and Terenzini (2005) cite research that found counseling had a positive impact on student persistence. Academic counseling, while a time-consuming and continuous process, may be an effective component of a retention plan. First-year students making their transition to college life may indeed benefit from being assigned to an academic counselor, especially if those students have a fixed mindset or are not able to practice interdependence. It follows that sessions with a trained counselor could impact student success early on, leading to increased academic and social integration.

Another aspect of students' perception of support services involved students' comfort level in using them. Interestingly, undeclared students felt strongly that tutoring was useful, but they reported feeling somewhat less comfortable accessing the service.

Meanwhile, declared students felt more strongly that advising was useful, yet they felt less comfortable utilizing that service. It would be enlightening to have more in-depth information from students regarding these perceptions. Could undeclared students benefit from tutors who made an effort to connect with them on a more personal level during sessions? Would better learning occur if both the cognitive and affective domains are addressed? Would declared students appreciate a similar level of interpersonal communication with their advisors? Do they feel rushed during brief meetings with their overburdened professors? Are there alternative advising models that may enhance the feeling of connection that students need, especially early on? Further study may shed light on these intriguing questions.

In hindsight, certain improvements may have resulted in a more effective study and should be adopted in future research endeavors dealing with support services research. For example, a small pilot study should have been conducted to test the clarity of language and overall organization of the student survey. Also, it would have been helpful to track actual student usage of the services to verify their self-reported usage. Additionally, it would have been enlightening to conduct more interviews with students, especially those who were verified frequent users of the support services being studied. Finally, conducting follow-up research to determine how many students actually persisted would have painted a more convincing picture of the relationship between support service usage and persistence among at-risk, undeclared students.

Finally, it was the hope of the researcher that this study would uncover a strong relationship between using support services and persistence and sense of belonging among at-risk students. Even though the data did not provide sufficient evidence to

demonstrate a significant relationship, the study nonetheless suggests that further research is called for to piece together the puzzle of student persistence. In retrospect, conducting a follow-up survey on students who actually persisted or not, might be another way to explore the relationship between using student support services and persistence in college.

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APPENDICES

7. I believe the support services mentioned above (tutoring, advising, counseling) are important to my academic progress.

1 2 3 4 5

8. I believe using the services (tutoring, advising, counseling) has already helped me achieve academic success.

1 2 3 4 5

9. I intend to return to ESU next semester.

1 2 3 4 5

10. I believe my experience using the services (tutoring, advising, counseling) has influenced my decision to return to the college next fall.

1 2 3 4 5

11. I believe offering these support services demonstrates that my college supports me.

1 2 3 4 5

12. Feeling like I “belong” at ESU is important to me.

1 2 3 4 5

13. I believe that I belong at ESU.

1 2 3 4 5

14. Using the support services offered by ESU contributes to my sense of belonging here.

1 2 3 4 5

15. Would you be willing to be **interviewed** to assist the researcher in better understanding your responses? (Circle one) **YES** **NO**

APPENDIX B

Student Perceptions of Feeling Connected to the University

Interview Questions

Introductory Questions

1. Approximately how many credits have you earned prior to this semester?

Tutoring

2. Have you attended tutoring sessions?
3. Why did you seek tutoring?
4. What are some positive aspects of tutoring? Are there any negatives?
5. How does tutoring affect your perception of ESU as a caring institution?
6. How does tutoring affect your perceptions of (a) your academic success; (b) your self-confidence; and (c) your feeling that you belong at ESU?

Advising

7. Have you met with an advisor this semester?
8. Why did you meet with your advisor?
9. What are some positive aspects of meeting with your advisor? Any negatives?
10. How does advising affect your perception of ESU as a caring institution?
11. How does advising affect your perceptions of (a) your academic success; (b) your self-confidence; and (c) your feeling that you belong at ESU?

Counseling

12. Have you met with your academic counselor this semester?
13. Why did you meet with your counselor?
14. What are some positive aspects of meeting with your counselor? Any negatives?

15. How does counseling affect your perception of ESU as a caring institution?
16. How does counseling affect your perceptions of (a) your academic success; (b) your self-confidence; and (c) your feeling that you belong at ESU?

Concluding Questions

17. How strong is your sense of belonging at ESU?
18. How has your usage of one or more of the support services mentioned above contributed to your sense of belonging at ESU?

APPENDIX C

Letter of Consent – Survey

Dear Student:

I am a doctoral student enrolled at Indiana University of Pennsylvania conducting research at East Stroudsburg University as part of a dissertation requirement. I am studying students' perceptions of support services at ESU, such as tutoring, advising, and academic counseling (not psychological counseling offered at the Counseling Center). The purpose of my research is to determine if students believe those services are helpful and contribute to feeling like they “belong” at ESU. I am also interested in whether or not students intend to return to ESU in the fall.

I am asking for your participation in responding to a short survey, *Survey of Student Perceptions of Support Services and Persistence*, that will only take several minutes of your time. Your responses are important because they will help shed light on how students like you feel about tutoring, advising, and academic counseling services in general and if those services have helped you feel more “connected” to ESU. You may choose not to participate or withdraw from participating at any time without penalty.

This study has been approved by the East Stroudsburg University Institutional Review Board for the Protection of Human Subjects. You may contact the Administrator, Dr. Shala Davis at SDavis@po-box.esu.edu for further information or if you have questions. I can be reached at vreiner@po-box.esu.edu or 570-422-3060 for questions regarding this study, or you may contact my doctoral committee chair, Dr. Sussie Eshun, at 50-422-3736 with any concerns.

I am requesting your consent to respond to a one-time survey about your perceptions of support services at ESU. None of your identifying information will be collected with the survey, all data will be aggregated so that no one will be able to identify your individual responses, and all materials will be secured in a locked file cabinet that only the researcher has access to. Please read the following statement. If, after reading it, you agree to participate in the survey, please sign this Consent Form and return it to me via campus mail (**Virginia Reiner, DAEL, Rosenkrans East**) or drop it in the box marked “**Consent Forms – V. Reiner**” at the reception desk as you enter the Tutoring Center in Rosenkrans East.

*I acknowledge that I received information about the research study, **The Impact of Academic Support Services on Social and Academic integration and Persistence of Undeclared Students**, had a chance to review the materials, and had an opportunity to have any questions answered. I understand that the study will examine how students perceive support services at ESU and if using the services helps students feel more connected to the university.*

I, _____, hereby acknowledge my willingness to participate in this voluntary study. I understand that I may withdraw my participation at any time without penalty.

Signature: _____ Date: _____

I may be willing to participate in a follow-up interview about my perceptions of support services at ESU and my sense of belonging at the university. My contact information is:

NAME: _____

EMAIL: _____

PHONE: _____

APPENDIX D

Cover Letter – Survey

Dear Student:

Thank you for consenting to participate in the study I am conducting as part of my doctoral dissertation requirement. Please respond to the attached survey by first indicating your gender and then listing the number of credits you have completed at ESU, but do NOT including the credits you are taking this semester.

The rest of the survey contains items that ask you to choose the number, from 1 to 5, that best describes your level of disagreement or agreement with each statement. Choosing “1” indicates that you “Strongly Disagree” while choosing “5” indicates that you “Strongly Agree” with the statement.

The last item on the survey asks if you would be willing to be interviewed to follow up on some of your responses to the survey. Please circle either YES or NO.

Please return the completed survey to me via campus mail (address to: **Virginia Reiner, DAEL, Rosenkrans East**) or drop it in the box marked “**Completed Surveys – V. Reiner**” at the reception desk in the tutoring center, Rosenkrans East **BEFORE APRIL 18, 2011.**

Again, thank you for participating!

Sincerely,

Virginia Reiner, Department of Academic Enrichment and Learning

Rosenkrans East, Room 24

570-422-3060

APPENDIX E

Letter of Consent – Interview

Dear Student:

I am a doctoral student enrolled at Indiana University of Pennsylvania conducting research at East Stroudsburg University as part of a dissertation requirement. I am studying students' perceptions of support services at ESU, such as tutoring, advising, and academic counseling (not psychological counseling offered at the Counseling Center). The purpose of my research is to determine if students believe those services are helpful and contribute to feeling like they “belong” at ESU. I am also interested in whether or not students intend to return to ESU in the fall.

Since you indicated on a previous consent form or on the survey that you may be willing to be interviewed, I am now asking for your consent to conduct the interview. The interview questions, titled *Student Perceptions of Feeling Connected to the University*, will help shed light on how students like you feel about tutoring, advising, and academic counseling services in general and if those services have helped you feel more “connected” to ESU. You may choose not to participate or withdraw from participating at any time without penalty.

This study has been approved by the East Stroudsburg University Institutional Review Board for the Protection of Human Subjects. You may contact the Administrator, Dr. Shala Davis at SDavis@po-box.esu.edu for further information or if you have questions. I can be reached at vreiner@po-box.esu.edu or 570-422-3060 for questions regarding this study, or you may contact my doctoral committee chair, Dr. Sussie Eshun, at 50-422-3736 with any concerns.

I am requesting your consent to be interviewed about your perceptions of support services at ESU. No information collected will identify individual participants and all notes and recordings will be secured in a locked file cabinet that only the researcher has access to. Please read the following statement. If, after reading it, you agree to participate in the interview, please sign this Consent Form and return it to me via campus mail (**Virginia Reiner, DAEL, Rosenkrans East**) or drop it in the box marked “**Consent Forms – V. Reiner**” at the reception desk as you enter the Tutoring Center in Rosenkrans East.

*I acknowledge that I received information about the research study, **The Impact of Academic Support Services on Social and Academic integration and Persistence of Undeclared Students**, had a chance to review the materials, and had an opportunity to have any questions answered. I understand that the study will examine how students perceive support services at ESU and if using the services helps students feel more connected to the university.*

I, _____, hereby acknowledge my willingness to participate in this voluntary study. I understand that I may withdraw my participation at any time.

Signature: _____ Date: _____

APPENDIX F

Cover Letter – Interview

Dear Name of Student:

Thank you for agreeing to participate in an interview regarding your perceptions of support services at ESU. The interview will consist of questions related to those on the survey you completed recently. You will have the opportunity to elaborate on your responses and to provide more detail. I will audio-tape the interviews and then transcribe the content. Interviews will take place in private in the Dean's Conference Room in Rosenkrans East. The interview should take approximately 30 minutes.

Two possible appointment dates and times are listed for your convenience. Please indicate your preference by checking the appropriate line. If neither date nor time is possible, please list a date and time that you are available for the interview.

1. **Tuesday, April _____ at __:__**
2. **Thursday, April _____ at __:__**
3. **_____, April _____ at __:__**

Please return this form via campus mail to Virginia Reiner, DAEL, Rosenkrans East

before April 18, 2011.

Sincerely,

Virginia Reiner, Department of Academic Enrichment and Learning

Rosenkrans East, Room 24

570-422-3060

APPENDIX G

Survey Responses

Survey Item	Response	Undeclared		Declared	
		<i>Frequency</i>	<i>Percentage</i>	<i>Frequency</i>	<i>Percentage</i>
#1	1	2	4.1	1	2.4
	2	3	6.1	4	9.8
	3	14	28.6	10	24.4
	4	20	40.8	11	26.8
	5	10	20.4	15	36.6
#2	1	2	4.1	0	0.0
	2	1	2.0	3	7.3
	3	9	18.4	10	24.4
	4	19	38.8	15	36.6
	5	18	36.7	13	31.7
#3	1	3	6.1	1	2.4
	2	2	4.1	6	14.6
	3	6	12.2	7	17.1
	4	16	32.7	15	36.6
	5	22	44.9	12	29.3
#4	1	3	6.1	0	0.0
	2	3	6.1	5	12.2
	3	4	8.2	3	7.3
	4	15	30.6	22	53.7
	5	24	49.0	11	26.8
#5	1	1	2.0	1	2.4
	2	1	2.0	1	2.4
	3	15	30.6	14	34.1
	4	14	28.6	17	41.5
	5	18	36.7	8	19.5
#6	1	1	2.0	0	0.0
	2	1	2.0	1	2.4
	3	16	32.7	15	36.6
	4	15	30.6	18	43.9
	5	16	32.7	7	17.1
#7	1	1	2.0	0	0.0
	2	0	0.0	0	0.0
	3	10	20.4	8	19.5
	4	21	42.9	18	43.9
	5	17	34.7	15	36.6

Survey Item	Response	Undeclared		Declared	
		<i>Frequency</i>	<i>Percentage</i>	<i>Frequency</i>	<i>Percentage</i>
#8	1	1	2.0	1	2.4
	2	4	8.2	6	14.6
	3	12	24.5	9	22.0
	4	16	32.7	19	46.3
	5	16	32.7	6	14.6
#9	1	5	10.2	2	4.9
	2	1	2.0	1	2.4
	3	2	4.1	1	2.4
	4	3	6.1	9	22.0
	5	38	77.6	28	68.3
#10	1	9	18.4	4	9.8
	2	5	10.2	8	19.5
	3	14	28.6	15	36.6
	4	9	18.4	11	26.8
	5	12	24.5	3	7.3
#11	1	1	2.0	0	0.0
	2	1	2.0	1	2.4
	3	9	18.4	6	14.6
	4	22	44.9	21	51.2
	5	16	32.7	13	31.7
#12	1	1	2.0	0	0.0
	2	6	12.2	2	4.9
	3	11	22.4	3	7.3
	4	15	30.6	21	51.2
	5	16	32.7	15	36.6
#13	1	4	8.2	1	2.4
	2	3	6.1	2	4.9
	3	7	14.3	9	22.0
	4	17	34.7	15	36.6
	5	18	36.7	14	34.1
#14	1	3	6.4	0	0.0
	2	5	10.6	2	4.9
	3	16	34.0	11	26.8
	4	16	34.0	19	46.3
	5	7	14.9	9	22.0