

The Effects Of An Academic Support Services Unit On The Grade Point Average For Students Admitted On Probation

2005

Keith Branham
University of Central Florida

Find similar works at: <https://stars.library.ucf.edu/etd>

University of Central Florida Libraries <http://library.ucf.edu>

 Part of the [Educational Leadership Commons](#)

STARS Citation

Branham, Keith, "The Effects Of An Academic Support Services Unit On The Grade Point Average For Students Admitted On Probation" (2005). *Electronic Theses and Dissertations*. 287.
<https://stars.library.ucf.edu/etd/287>

This Doctoral Dissertation (Open Access) is brought to you for free and open access by STARS. It has been accepted for inclusion in Electronic Theses and Dissertations by an authorized administrator of STARS. For more information, please contact lee.dotson@ucf.edu.

THE EFFECTS OF AN ACADEMIC SUPPORT SERVICES UNIT ON THE GRADE
POINT AVERAGE FOR STUDENTS ADMITTED ON PROBATION

by

KEITH W. BRANHAM

B.S. Mid-America Nazarene College, 1980
M.Div. Nazarene Theological Seminary, 1994

A dissertation submitted in partial fulfillment of
the requirements for the degree of Doctor of Education
in the Department of Educational Leadership
in the College of Education
at the University of Central Florida

Spring 2005

Major Professor: Douglas P. Magann

© 2005 Keith W. Branham

ABSTRACT

The goal of this research was to examine the effects, if any, the programs available from an Academic Support Services unit of a small, private, liberal arts college might have on the grade point averages of students admitted on probation over two major semesters. The assumption was that the students who utilized the services of the Academic Center for Excellence would demonstrate more increases in GPA than students who did not utilize the services.

The literature review of this study found that, although there were many factors and student characteristics that could predict and explain student achievement in course work, GPA was a good predictor and the only real measure of a student's performance. The programs designed to offer support are demonstrated to aid students in improving their academic achievement.

The results of this study suggest that GPA is a good predictor of a student's academic achievement and a primary method of assessing student academic achievement. However, there was no apparent impact of the support services unit on the grade point averages of the students admitted on probation.

Suggested uses for the study included the development of freshman orientation programs that integrate the student into academic life and a retooling of counseling and advising programs.

This project is dedicated to my wife, Lynne. She has been the one person most supportive of my completing this degree. She agreed with this decision from the start, got up early to feed me and send me off to class with lunch and snacks, left me alone to read and write many late nights, and did not complain at any point about my not being home on Saturdays. She even thanked me for taking this bold step “for us.” I could not have had a better partner in all of this, nor could I have done this without her loving support and backing.

ACKNOWLEDGMENTS

I want to acknowledge Dr. William Bozeman for helping me in the admissions process into this program. Without his patient persistence, I might not have ever started this endeavor. I gratefully acknowledge Dr. Mary Lynn for pushing me to think about my writing in an academic manner. I am especially appreciative of Dr. Douglas Magann, who has been instrumental in getting me through this dissertation, and was one of the most pragmatic classroom instructors in this program. I must thank Bill Wetherell, Dr. Charles McQuillen, and David Laney at the Eastern Region campuses of the University of Central Florida for being tolerant of my academic responsibilities in this program. They were my supervisors during the years I attended classes in pursuit of this degree. Mr. Laney has been particularly helpful during the completion of this dissertation. He even offered advice on the statistical portions. To all of you I offer my thanks.

TABLE OF CONTENTS

TABLE OF CONTENTS.....	vi
LIST OF FIGURES	viii
LIST OF TABLES	ix
CHAPTER 1 PROBLEM STATEMENT AND ITS DESIGN COMPONENTS	1
Introduction.....	1
Statement of the Problem.....	7
Hypotheses.....	8
Definition of Terms.....	9
Significance of the Study	12
Assumptions.....	13
Delimitations.....	13
Organization of the Study	14
CHAPTER 2 LITERATURE REVIEW	15
Introduction.....	15
The Need for an Academic Support Services Office.....	16
Purpose of an Academic Support Services Unit.....	17
The Responsibilities of the Student and the Unit Staff.....	20
The Development and Delivery of Services to Participants	23
The Assumption of Educational Plan Ownership by the Students	30
Summary	40
CHAPTER 3 METHODS AND PROCEDURES	42
Purpose.....	42
Population and Sample	42
Hypotheses.....	45
Setting	46
Research Design.....	48
Data Collection	49
Data Analysis.....	50

CHAPTER 4 DATA ANALYSIS	52
Introduction.....	52
Population of this Study.....	53
Data Analysis.....	55
Comparing Each Cohort by Semester.....	60
Comparing Each Type of Admission.....	64
Results of Hypotheses.....	67
 CHAPTER 5 SUMMARY, DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS.....	 70
Statement of the Problem.....	70
Methodology	70
Discussion.....	71
Conclusions.....	73
Recommendations.....	74
 LIST OF REFERENCES.....	 76

LIST OF FIGURES

- Figure 1. First and second term GPA by academic year for provisional admission students who received no service..... 56
- Figure 2. First and second term GPA by academic year for provisional admission students who received service..... 58
- Figure 3. First and second term GPA by academic year for regular admission students. 60

LIST OF TABLES

Table 1. Population and sample by academic year of admission.	44
Table 2. Population and sample of the study.	54
Table 3. Mean GPA for each semester for probation students who received no service.	55
Table 4. Mean GPA for each term of probation students who received services.	57
Table 5. Mean GPA for each term of regular admission students.	59
Table 6. ANOVA summary mean GPA between all groups in fall semester at 95% CI.	62
Table 7. ANOVA summary mean GPA between all groups in spring semester at 95% CI.	63
Table 8. ANOVA summary mean GPA between fall and spring terms for students admitted on probation who did not utilize support services at 95% CI.	65
Table 9. ANOVA summary mean GPA between fall and spring terms for students admitted on probation who did utilize support services at 95% CI.	67

CHAPTER 1
PROBLEM STATEMENT AND ITS DESIGN COMPONENTS

Introduction

Historically, there has been tremendous interest in the retention of students in a college or university program of study, and that interest has not waned. If anything, it has grown in the past few years (Upcraft, Gardener and Associates, 1989). Providing a means of matriculation through a degree program is popularly considered the purpose of any institution of higher education, whether public or private. Allen (1994) listed three specific characteristics that distinguished those that persisted from those that dropout: (a) Greater encouragement from family, (b) better academic performance, and (c) greater commitment from the institution. It is the latter two that are the focus of this project. A greater commitment from the institution is part of the function of the student support services programs.

Reasons for attrition among college and university students vary. They include such indicators as personality type, family support, financial considerations, individual motivations, and even personal preparation for higher education.

In research related to personality type and college or university retention, the Myers-Briggs Type Indicator, according to Evans, Forney, and Guido-DiBrito (1998), is the most extensively used instrument for personality assessment. As an example of this type of research, Provost (1985) found that students who were most likely to leave college early were introverts who reported difficulty becoming involved and connected to the university. These introverted students were evaluated on the Myers-Briggs to determine their personality type. The personality type of students who were most likely to persist to graduation was extrovert and this personality type usually reported high levels of involvement in campus activities. However, Spann, Newman, and Matthews (1991) found that, among students who did not meet admissions criteria, the introverted personality was more likely to persist. Their research suggested that tenacity and perseverance are personality characteristics associated with the introvert sensing (IS according to the Myers-Briggs) personality type. Most researchers tend to agree that tenacity and perseverance are essential characteristics for matriculation through a college or university program of study.

Though not as serious as dropping out of high school and secondary educational institutions and programs, failure to complete a college degree puts people in similar situations. Those who do not complete a bachelor's degree can anticipate lower income, lower lifetime earnings, and higher unemployment rates compared to those who complete a bachelor's degree (Rumberger, 1987). Even societal effects can be felt. Besides the

lower tax revenue due to lower income of most non-college graduates, there can be increased dependence on public services, making the estimate of costs of public services significant (Catterall & Stern, 1986).

These issues add to the reasons that concern for retention and attrition rates for college and university students have increased over the years. Programs geared to identify and stifle the issues that cause attrition of students have noted certain characteristics of students that can point to particular students leaving school before completing a degree program. Brawer (1996) reported that various studies indicate part-time attendance, age, employment status, family obligations, financial concerns, gender, and even grade point average contributed to the possibility of a student dropping out of school. Belcheir and Michener (1997) reported the first semester grade point average to be a particularly good predictor of persistence to complete a degree program. They further reported that faculty contact is an important part of retention. Faculty participation is often part of an academic support services unit program. Their studies also demonstrated that poor grade point average is the number one reason given for students not contacting or conversing with faculty.

There are many reasons students stop attending colleges and universities, many of which can be traced back to students' preparation for higher education. Students who come from families that are pro-higher education are more likely to finish a degree than students who are first generation college students. Preventing students from dropping out

of higher education may require accommodation or adjustments in current and traditional higher education policies, administration, curriculum, and support services (Cross, 1981). Although in this country there is respect for and commitment to individual achievement, it is also recognized that the achievement of individuals frequently depends on the background of those individuals. Things like their family situation, the neighborhood in which they grew up, the schools they attended, and the informal influences in their lives, not just the personal abilities they possess (Cuseo & Barefoot, 1996).

To support the commitment to individual achievement so valued in this country, Congress established a series of programs to help low-income, first-generation Americans enroll in college, graduate and move on to participate more fully in the American dream, including social life and economic success. These programs are funded under Title IV of the Higher Education Act of 1965 and are referred to as the TRIO Programs (so called because initially there were only three). The current programs are: Upward Bound, Talent Search, student support services, the Educational Opportunity Training Centers, the Training Program for Federal TRIO Programs, and the Ronald E. McNair Post-Baccalaureate Achievement Program (U.S. Department of Education, 2005).

It is estimated that some 11 million Americans are in critical need of the programs offered through TRIO grant funding, although fewer than 5% of eligible patrons can actually be served at current levels of federal funding. Federal TRIO programs are

designed to help students in higher education overcome class, social, academic, financial and cultural barriers to higher education. According to the Fiscal Year 2002 Budget and Background Information, Federal TRIO Grant Programs represent one of the largest efforts to address the needs of students in colleges and universities in tutoring, career counseling, special instruction in reading, writing, study skills and mathematics, and several more personal areas, with nearly 785,000 students served.

According to the National Council of Educational Opportunity Associations (1997), the educational and human services offered by means of the TRIO programs are unique from other support programs in United States colleges and universities as they pertain to college students because they are, among other things, one-on-one programs that are performance based. As a one-on-one program, most TRIO Programs serve less than 250 students, meaning their counselors are able to work with each student individually.

According to the U.S. Department of Education TRIO Website, each TRIO Program must operate according to specific and measurable objectives. Before the actual TRIO grant is awarded, the proposal must specify these objectives, and each school is held accountable for them. Continued funding is based on the accomplishment of these objectives, making them performance based. Further, because they focus on early interventions, the counselors are proactive in dealing with the college students. Part of that intervention plan is to target first-generation and low-income students. Some two-

thirds of the students in the TRIO Programs are from families with incomes under \$24,000 annually for a family of four. For most of these students, neither parent graduated from college, and most of these parents have no higher education experience at all. As a result, they do not understand the postsecondary process. Part of how the early intervention is accomplished is in building relationships with the students. This creates a climate of support and acceptance for the students.

The commitment of TRIO Programs, according to the TRIO Achiever's website (2005), is to high-risk students. This website goes on to point at that, often, the students who qualify for TRIO Programs are disadvantaged in some way. Disabled, single parent, low-income, or academically at-risk high school students are the dominant participants in these programs. These students find the program to be consistent and intense. The counselors meet, by requirement of the grant, with the students at odd hours, during summers, at the student's home, or on weekends (U.S. Department of Education TRIO website). TRIO Programs also provide cultural experiences students might not otherwise have, thus moving them far beyond the traditional services offered by other advising offices (TRIO Achiever's website).

Student support services are called by many names, and include a wide variety of services. Often, student support services do not refer specifically to TRIO Programs. According to the National Academic Advising Association, these generic student support services offices may house financial aid, academic or programmatic advising, career

counseling, fee payment, veteran's services, disability support, admissions, registration, and even student government associations. The National Academic Advising Association also notes that as the educational institution increases enrollment, it is more likely the student services office will separate the unit to more specialized offices (King, 2003).

Statement of the Problem

The purpose of this study was to evaluate the impact of an academic support services unit on students admitted on probation to a small, private, liberal arts university. The interest was whether or not students who are admitted on probation, but utilize the academic support offices of their college or university, are more likely to improve their grade point average and be removed from probation than students who do not seek assistance from the academic support service offices. The premise was strictly that grade point averages of students admitted on probation will improve as a result of the services offered through the academic support services unit of a small, private, liberal arts college, if those services are utilized by the probationary student.

This premise was tested on the basis of the following question: Are there significant differences in academic performance between students who seek assistance from the academic support services office and those students who do not? It was thought that students who utilized the academic support service office would be better prepared

for their classes each term than those who did not take advantage of the academic support services that were available, and that their first semester grade point average would improve in the second semester.

Hypotheses

The following question and null hypotheses were used to guide the study:

Do students who are admitted on probation and who utilize the Academic Center for Excellence show more improvement in their grade point averages from fall semester to spring semester than either (a) probationary students who do not utilize the Academic Center for Excellence services or (b) students granted regular admission?

HO₁: There will be no statistically significant improvement in grade point averages from fall semester to spring semester for students admitted on probation who utilize the Academic Center for Excellence.

HO₂: There will be no statistically significant improvement in grade point averages from fall semester to spring semester for students admitted on probation who did not utilize the Academic Center for Excellence.

HO₃: There will be no statistically significant change in grade point averages from fall semester to spring semester for students granted regular admission.

HO₄: There will be no statistically significant difference between the spring semester grade point averages of probationary students who utilized the Academic Center

for Excellence and probationary students who did not utilize Academic Center for Excellence.

HO₅: There will be no statistically significant difference between the spring semester grade point averages of probationary students who utilized the Academic Center for Excellence and students granted regular admission.

HO₆: There will be no statistically significant difference between the spring semester grade point averages of probationary students who did not utilize the Academic Center for Excellence and students granted regular admission.

Definition of Terms

The following definitions were used throughout the study:

Advising - prescriptive academic directing. It is limited to the requirements of the student's specific degree.

ACE - Academic Center for Excellence. This is the acronym and the name used for the academic support unit at the college from which the populations were selected for this study.

Cohort – A generational group as defined in statistics (American Heritage Dictionary, 2000). For this study, cohort refers to the populations and samples selected by academic year of admission.

College Drop-out - College student who failed to graduate and had no plans to take up further study.

Counseling - developmental advising. To counsel a student, one is proffering suggestions on the student's future, helping the student to make career choices.

GPA - grade point average, which is the average number of grade points per semester hours attempted. The grade point average is computed by dividing the total number of grade points assigned by the total number of semester hours attempted, less hours resulting from NC, W, WP, and I grades.

Cumulative GPA - the grade point average of a student for their higher educational career.

Graduation GPA - grade point average necessary to graduate, typically 2.0.

Semester GPA - the grade point average for one semester.

First-generation College Students - Students whose parent(s) have not earned four-year college degrees.

Graduation/Program Completion - The successful conclusion of academic requirements for a baccalaureate degree.

Integration - The extent to which the individual shares the attitudes and values of peers, faculty, and staff in that institution, and the extent that the student is willing to abide by the formal and informal requirements for participation in that particular academic community.

Positive Outcomes - The accomplishments of students in reaching acceptable grade point averages, retention and graduation standards as established by the respective college or university.

Retention - admitted students remaining in the degree program of a higher education institution from one semester to the next.

SSS - student support services, though a generic term, is often applied to various units within colleges and universities. In the case of this particular college, it is the umbrella unit under which the university houses the ACE program. The student support services name comes from the Federal TRIO grant program through which programs of this type are usually funded.

Support Services - Any and all non-instructional assistance provided by an institution to enable students to participate in educational activities related to their personal goals. This includes orientation, academic and educational advisement, counseling, financial aid, career guidance, study skill training, tutoring, and cultural opportunities.

TRIO Programs - Federally funded grant programs that include a variety of programs that are geared to helping and supporting students considered at-risk for completion of a college or university degree program. The original legislation referred to three specific federally funded programs (Upward Bound, Talent Search, and Student

Support Services), it was established under the Higher Education Act of 1965 and authorized by Title IV.

Significance of the Study

According to Brawer (1996), retention is a topic of concern and a priority item among administrators in colleges and universities, and finding ways to keep students attending school is important. Students who are succeeding academically are more likely to continue in their degree program to graduation. Research has been conducted in the 1970s, 80s, and 90s on the importance of a variety of non-academic and academic factors on the success of high-risk or disadvantaged students in college. One study suggested that students who study ten or more hours outside of class consistently earned higher grades (Kutz, 2003). As the Academic Center for Excellence encourages students in their academic pursuits, promoting study time is a part of the one-on-one counseling provided by the Center. Student support services as part of TRIO Program grants have become integral parts of the retention efforts in many universities, both public and private. An evaluation of the impact of such programs may shed light on efforts to improve retention rates.

As retention is so important among colleges and universities, students' grade point averages are among the things seen as a direct result of academic performance. Several studies reported the grade point average to be closely related to student

persistence (Astin, 1975, Ramist, 1981). According to Tharp (1998), college grade point average is the most important factor in predicting persistence, and the researchers found that students were more likely to be retained at the institution if their grade point averages were high. Students with a higher grade point average were also more likely to enroll in the next semester (Waggener & Smith, 1993).

This study may provide a basis for continued research into student support services at the particular university chosen for this project. It is hoped that this may offer support for continued TRIO funding for the benefit of students in the Academic Center for Excellence and other similar programs.

Assumptions

The following were recognized as assumptions of this study:

1. It was assumed the data provided by college were consistent with the requested guidelines.
2. It was assumed that data provided by the college were accurate.

Delimitations

The study was delimited by the following:

1. Age, race, and gender were not factors in the selection of information for this particular study in determining the grade point averages, as the grade point averages

as a measure of the success of the student support services program were the only item of interest.

2. No student identifiers were available. Only the grade point averages of students selected by the college were used.

3. Data used in the analysis were limited to that which the school provided.

Organization of the Study

Chapter 1 of this study outlines the specific problem. Chapter 2 is a review of the relevant literature pertaining to grade point averages and students' achievement in college, including the responsibilities and purposes of the student support services units. Chapter 3 is a description of the methods and procedures used in the collection of data. Chapter 4 consists of an analysis of the data and a presentation of the results. Chapter 5 provides a discussion of the findings and implications for practice.

CHAPTER 2

LITERATURE REVIEW

Introduction

A review of literature for this project suggested several things should be considered. The purpose of this review, then, is to provide background information on the origins of tutoring and student support services programs, reveal academic and non-academic factors related to academic performance and retention of high-risk students, discuss the process of advising or counseling students in student support services programs, and provide information on retention programs and student support services programs. This literature review is designed to provide information regarding various types of supportive programs as they relate to grade point averages.

Allen (1994) reported three characteristics that separated those who persisted to degree completion from those who dropout as (a) greater encouragement from family, (b) better academic performance, and (c) greater commitment to the institution. Tinto (1999) reported that “more than 47 percent of all students in America who start at a four-year college still fail to earn a degree at that college; and nearly 56 percent of all dropouts from four-year institutions leave before the start of their second year” (p. 1). This is the reason most educational institutions operate some kind of an academic support services office or unit, even if it is not TRIO grant funded. Each institution that offers assistance

to at risk students does so through an academic support services unit. These units offer several services and structured retention programs. These services and programs vary between institutions, but the purpose is the same across institutional lines: retention of the students.

In reviewing the literature on the advising or counseling function of the student support services program, five themes stood out: (a) The need for an academic support services office, (b) the purpose of that unit, (c) the responsibilities of the student and the unit staff, (d) the development and delivery of services to participants, and (e) the assumption of educational plan ownership by the students. These are the areas that will be discussed in this review.

The Need for an Academic Support Services Office

The Higher Education Act of 1965 defined a disadvantaged student as economically disadvantaged. While student financial aid programs help students overcome financial barriers to higher education, TRIO programs help students overcome class, social and cultural barriers. Student support services and other TRIO programs, combined with federal student financial aid programs, reflect a national commitment to provide educational opportunity for all Americans regardless of race, ethnic background, or economic circumstances. Since the mid-1960s, Congress has recognized that financial aid alone will not ensure equal educational opportunity to disadvantaged students. For

this reason, it has sponsored the development of corresponding supplemental services to prepare disadvantaged students for college and enable them to succeed (Douglas, 1998).

Purpose of an Academic Support Services Unit

The academic support services unit of most colleges and universities serves the purpose of helping students achieve the academic goal of earning a degree. This includes academic advising (also referred to as educational advising), academic intervention programs, retention programs, study skills development, supplemental instruction, test preparation, and time management. Retention is the primary concern of the administration in establishing the academic support services units (Brawer, 1996). Grimes (1997) reported that under-prepared students demonstrated higher levels of test anxiety and a more external locus of control than students who did not enter college on probation. Further, Dworkin (1996) reported that students with higher perceptions of social and institutional support were more likely to persevere in their undergraduate efforts and continue to four-year institutions. When the needs of at-risk students are assessed and a program put in place to address those needs, Bogart and Hirshberg (1993) reported higher retention rates. It is this type of function that is part of an academic support services office.

Tinto's (1975) theory of student departure was an attempt to explain and understand attrition among college students. Students enter colleges and universities with a variety of personal, family, and academic characteristics and goals. The environment of the college they enter is comprised of the school's mission, administration, staff, faculty, facilities, student support services, and quality of the student to instructor and student to student interactions (Ponce, 1988). The greater the compatibility is between the student and the institution, the greater the probability is that the student will continue to degree completion.

Pascarella and Terenzini (1991) addressed two key concepts of a student's compatibility with academic study and any particular institution. They reported that integration means the extent to which the individual shares the attitudes and values of peers, faculty, and staff in that institution, and the extent that the student is willing to abide by the formal and informal requirements for participation in that particular academic community. When integration does not occur, it is likely that students will fail to complete their degrees. According to Tinto (1975), when individuals do not experience sufficient integration into the academic setting, feelings of personal incongruence based on their perceptions of not fitting within the institution may develop. In addition, an individual may also feel separated, even isolated from college or university experiences that would foster their involvement and integration into that college system. These feelings can increase the possibility that the student will drop out

of that institution. A study by Grosset (1997) indicated that 27% of students considered dropping out. Reasons cited included such experiential things as rude treatment by advising staff, unavailability of courses, and ineffective course advisement.

As cited in Roueche and Roueche (1993), Cross (1976) synthesized 30 years of literature on remedial and developmental education. Five major conclusions were made and stated as recommendations for designing effective retention programs; (a) skills training must be integrated into the other college experiences of the student; (b) cognitive training must be integrated with the social and emotional development of the student; (c) staff working with remedial students should be selected for their interest and commitment as well as for their knowledge about learning problems; (d) degree credit should be granted for remedial classes; and (e) remediation should be approached with flexibility and open mindedness.

A national survey conducted by the University of Texas (Roueche, Baker, & Roueche, 1984) suggested developmental programs reporting 50% or better retention had many elements in common. These included having (a) strong administrative support, (b) mandatory counseling and placement, (c) structured courses, (d) award of credit, (e) flexible course completion strategies, (f) multiple learning approaches (such as using volunteer instructors and peer tutors), (g) a system for monitoring student behaviors, (h) an interface with subsequent courses, and (i) program evaluation.

It is important to note that the activities and services offered in the academic support services unit include academic and educational advising. However, these terms are often used interchangeably and they are often used to mean a variety of academic support functions.

The Responsibilities of the Student and the Unit Staff

In the literature, it is generally accepted that there are certain elements to any advising session offered in the academic support services office that can make the advising session successful. Further, when the early advising sessions are successful, the student becomes more comfortable and trusting with the advisor, making the long-term relationship between student and advisor successful. The importance of the long-term relationship being successful is that the student needs to be able to believe they can depend on the advisor. Equally, the absence of these relationships contributes to making a student's college experience less than favorable. If the relationship between the student and the advisor is a successful one, the student's journey through university level academic study will likely be more enjoyable, more fulfilling, and progress more smoothly. Thus, "advising should be designed to provide accurate, consistent, and accessible information for students concerning their progress within their curricula" (Fields & Barrett, 1996, p.10).

Material written specifically about the sessions between students and their advisors covers a broad range of areas (at risk students, international students, first year students, etc.). There are specific items that are noted in the literature that are important to the overall success of the advising session, and thus the academic support services office.

It is important that all students seek advising early. Unfortunately, as reported by the Texas Higher Education Coordinating Board (1995) “survey’s [*sic*] indicate that not all students, including first-time entering freshman, receive academic advising. Currently, much self-advising occurs for sophomores, students with a filed degree plan, and others.” Advising should take place from the time students begin college until they have completed their degree. This advising does not need to be weekly or even monthly, but should occur prior to the start of the next semester or term. As Fielstein (1989) stated, “the value of academic advising has been highlighted by numerous investigators...because of its importance in facilitating student development and fostering retention” (p. 33). In order to make this a successful experience, there are certain elements to a successful advising session for students, whether they are enrolled in a community college, private school, or state university. Those elements can be categorized into two groups: the responsibility of the student and the responsibility of the advisor. To be sure, the student must take responsibility for his or her own academic progress. However, advisors need to be aware of their responsibilities as well. Basically,

the student needs to be focused on a direction and accept the responsibility for that direction. The advisor needs to recognize the difference between counseling and advising, provide a realistic outline of what the student must do, and let the student make his or her own choices.

Is there a need for academic or educational advising for today's college students? Backhus (1989) states it this way: "The advising literature clearly identifies effective academic advising as one of the major strategies that might be undertaken to reduce student attrition, or, conversely, to increase retention" (p. 39). Also, Fields and Barrett (1996) pointed out that students must make an academic adjustment upon entering college. They define academic adjustment as "the academic abilities, motivational factors, and institutional commitment that influence college attrition and graduation" (p. 10).

Another item to consider when evaluating the need for academic advising is whether or not there is an impact on student academic performance when a student receives regular advising versus when a student does not seek help from an advisor. First, Backhus (1989) states that "frequent and meaningful...interactions not only produce an increased level of satisfaction with the undergraduate experience, but also an enhanced level of academic achievement" (p. 40). However, under-prepared students, especially first time in college students, often are lost in the general mix. Grunder and Hellmich (1996) studied multiple Florida community colleges and found, on average,

33% of under-prepared students withdrew during the first term, and only 16% of those subsequently enrolled for the next term (p. 1).

Often, students enter college “with a major misconception as to the role of the ...advisor. Many college freshman believe as a result of their high school experience, that the ...advisor sees students only if they are in academic or disciplinary trouble” (Siegel, p. 55). This is not at all the case. In today’s academic environment, disciplinary actions are carried out in the student development arena, not the advisor’s office. It is the job of the advisor to help the student make reasonable course selections that will accomplish the goal of earning the degree.

The Development and Delivery of Services to Participants

The student must accept ownership of the goal of earning an academic degree. It is ultimately the student’s responsibility. For this project, responsibility is defined in the sense of Reality Therapy (Glasser, 1975), which states that responsibility is “the ability to fulfill one’s needs” (p. 15). In the educational setting, the need is to earn the degree.

Choosing a major is the responsibility of the student. The student, however, may need the guidance of the advisor to understand which major is best in line with their career plans. The student needs to find a course of study and pursue it. Gordon (1997)

pointed out that there are three areas of need for undecided students:

1. Informational deficits, in which the student is unaware of which major is associated with which career, or of the type of resources available on the particular campus to help sort through career choices and make an informed decision about which major is best for them.
2. Developmental deficits, in which some students need more time to accomplish some of the developmental tasks that are essential for students in college to complete. These tasks include such things as personal autonomy and identity development.
3. Person-social concerns, which include internal conflicts that need resolution before a student can progress toward their academic goals. In this category, there may be conflicts between interest and ability (e.g., pre-med major who is poor in chemistry). There may even be conflicts with significant others in their lives, such as a parent's desire for the child verses what the child really enjoys (p. 202).

Some things are easier to work for than others, but there is always a cost involved in getting things we desire. People need to decide what is important in their lives and what they are willing to do to reach their goals, and being a student does not change that. Some students come into the advising office with a dream, yet have no real goal or plan to achieve that dream. The result is frustration as they begin to understand what it will take to reach that goal. Not all students are like the student who had a uniquely customized plan and who wrote:

I was 22 when I went to college (after the Air Force). I started at UW Stout in Menomonie, WI [sic] where I was a math major and took general courses since I knew I was on my way to MNU and then NTS.... At Stout the academic advice I received was that I needed to take more courses in my major. I didn't tell him I wasn't finishing there. (M. Postell, personal communication, June 6, 2002)

This student had a plan for his life and was following it. University of Wisconsin-Stout was his starting point, but his intent was to transfer to a private college after he had finished the larger portion of his general education courses. Not all students start college with a complete and fully developed plan for their future. Often, students come to the advisor on fishing missions, hoping to “find themselves” in the process of taking classes. This is not a bad thing unless the student refuses to make the leap of faith (as it were) and settle on a degree and major.

Students need to choose a major. Students must also accept responsibility for their chosen majors. It is the student’s decision. Once chosen, the student needs a plan to complete it in a certain amount of time (e.g., whether the student can attend part-time or full-time). The student also needs to recognize that the requirements of the degree must be met in order to be awarded that degree. No school publicizes that the completion of the degree is solely the responsibility of the school itself. In every case, the official publications state that the responsibility for completing the requirements of the degree belongs to the student. The student must accept that as reality, and utilize the advisor as a resource person to help sort through the degree requirements. Some students, however, are not accustomed to taking responsibility for their decisions (Gordon, 1997, p. 202). According to Gordon (1997), these students lack an internal locus of control and are unclear in their own vocational identity. These students may have been dependent

decision makers and unable to relate personal characteristics to educational and professional choices. They must develop an internal locus of control and establish their own identity.

Fields and Barrett (1996) have pointed out that the success of the advising effort depends primarily on the advisors and their commitment to the development of mature and self-directed students. The National Academic Advising Association (NACADA) published suggestions on ways to maximize the advising session with each student, whether first time in college or transfer or senior preparing to graduate. The dominant concept is to exhibit a caring attitude. Ten ways to do that, according to Ford (1991), are:

1. Greet advisees with a smile. This demonstrates an openness for the student, helping them to feel like they are not interrupting the advisor's other activities or personal plans. This goes a long way to easing any anxiety the student may feel.
2. Radiate a friendly attitude. As the student is the reason for the advising office to exist, the student must feel welcomed. Even the office staff, such as the secretary, should come across as friendly to the student.
3. Have an interesting office. Make the office yours. It does not need to be a home away from home, but it could be decorated in themes pertinent to the university or college calendar.
4. Know the names of advisees. Calling a student by their first name often makes the student feel important enough to be remembered.
5. Avoid threatening actions. Whenever possible and practical, sit on the same side of the desk as the advisee. Avoiding the barrier of the desk between the advisor and the advisee.
6. Maximize efficiency. This has to do with being error-free in the work. Besides the effect on the student's matriculation for a mistake on the advisor's part, it cheapens the effectiveness and authority of the advisor in the student's considerations.
7. Let the shuttle stop with you. When a student comes in the office, not knowing the answer and sending the student away is not acceptable. Not

knowing the answer to the student's question is not unacceptable; not finding the answer is.

8. See advisees frequently. Being proactive with the students is the best way to ward off mistakes. Also, be available to the students in informal settings, such as the school cafeteria, the library, and so on.
9. Practice empathy. The advisor should put themselves in the shoes of the advisee.
10. Be a good example. If the advisor tells the student they will take care of something for them, the advisor should follow-up and accomplish that task (p. 1-2).

The advisor, when dealing with any student, would do well to embrace the basic procedures of reality therapy. The advisor must become involved with the student in such a way that the student can see that their choices may be unrealistic. Then, the advisor must reject the choices that are unrealistic while still accepting the student. Finally, the advisor must direct the student to more realistic choices in their selection of classes, course load, and the like (Glasser, p. 25). The advisor has a responsibility to the student which, according to Gordon (1997), includes particular knowledge and skills. These skills include occupational information, counseling skills, general knowledge of academic programs, and understanding of course requirements. Gordon also pointed out that the advising staff must be accessible and non-judgmental.

There is a difference between counseling and advising. As Fielstein (1989) pointed out, "An important distinction has been drawn between two differing types of activities advisors should be offering to students. This... (defines) the advisor's relationship with the student as either prescriptive or developmental in approach" (p. 33).

The distinction between the two can be differentiated as advising and counseling. To define these terms, advising is prescriptive; it is academic, and is limited to the requirements of the student's specific degree. For example, if the student is considering changing her major, advising guides the student through the specifics of the process. Advising tells the student which form or forms are needed to officially change the major, who receives those forms, what the requirements of the new major will be, which courses the student has that will fit into which parts of the new major, and so on. It is the "how to do it." Counseling, on the other hand, is developmental. To counsel a student, one is proffering suggestions on the student's future and helping the student make career choices. It is the "why do it." It may include the mechanics (forms, courses, etc.), but it is more than mechanics. It is helping the student answer the question of what he wants to be when he grows up.

The advisors and counselors must also provide a realistic outline of what the student must do. Upon determining what the student is attempting to accomplish (i.e., the type of degree desired and the time frame the student has set to reach this goal), the advisor should begin directing the student in structuring his or her academic plan. This can often be seen as clear cut, but it is important that advisors realize that their role, as Althen (1985) said, "is not really advising in the sense of telling others...what they ought to do...(but) simply explaining or interpreting things to students" (p. 165). Advisors need to be knowledgeable about the requirements of the college major, how to get

interpretive information about it, and where to get clarifications about the degree program.

Students are more likely to finish their degrees if they are satisfied with the outcomes of the advising process. This satisfaction leads to less attrition. However, attrition “is the secondary, not the primary objective. The primary objective is to provide sound advice and guidance to students concerning academics and other student development outcomes” (Backhus, p. 40).

The student is responsible for making his or her own choices. The advisor should never tell the student what they are to do. The research of Belcheir (1998) found that students most strongly agreed that the advisor should respect the student’s right to make their own decisions. The advisor should offer suggestions based on the requirements of the degree and number of classes the student can realistically take in any given semester. The advisor must direct the student to the required courses, in the correct sequence, for the student’s major. If there are particular requirements as to when a course is to be taken, the advisor must direct the student to adhere to that requirement.

It is important that an advisor be attentive to students’ needs. Unfortunately, there is usually little or no organized training for faculty and staff to advise students, and the end result is that students may spend unnecessary time to earn their degrees. The relationship between the advisor and the student can become, as Duderstadt (2000) points out, “a feudal system” in which the advisor directs the student (p. 93). The student needs

to have some autonomy, because the student is legally an adult. Autonomy is “the ability to exist independently from others. Autonomy is an important quality for college students, especially freshman who are often still developing their own identities and career goals” (Oliver, Case, Powel, & Collins, 2000, p. 7). In high school, the advisor often dictates the course selection. To succeed in college, the student “must clearly understand that they must help themselves regardless of what has happened to them in the past” (Glasser, 1975, p.57). Sometimes the kindest thing that can be done for students is point out the reality of their situations. From there the advisor should direct students to the appropriate actions.

The Assumption of Educational Plan Ownership by the Students

One of the most popular methods used to help students make a smooth transition to college is the orientation course. Normally required of all first-year students, and usually prior to allowing them to actually enroll in classes, orientation programs can vary widely from college to college. However, all are designed to introduce students to some of the practical skills necessary for success and to expose them to the college's programs, procedures, and support services. It is particularly important for first-generation students, who often enter college with unrealistic expectations about academic demands, to complete an orientation course that not only addresses social adjustment issues, but also outlines the level of student effort required for success in college (Cuseo, 1993).

Pre-enrollment assessment is required at many colleges and universities in the United States (Cook, 1996). Assessment programs are important in identifying students' readiness for college level academic work or appropriate placement in basic skills courses such as math or composition. The benefit to the student is an enhanced opportunity for academic success. Some states that mandate entry-level assessment and placement (such as Texas, Florida, and New Jersey) are reporting improved student persistence and achievement (Roueche & Roueche, 1994). Although students often react negatively to assessment and monitoring, especially when the assessment requires developmental classes, one study suggested that when students are given an explanation of the benefits of assessment and monitoring, they are often more receptive to the process (Bach, Bernstein, & Vaughters, 1996).

Assessment test scores are also used as a strategy to predict whether a student may be at risk of failing academically or dropping out after being placed (Nielsen & Chambers, 1989). However, a student's intent (earning college credits versus personal enrichment), motivation, and goal orientation, among other factors, have also been noted as important in predicting persistence and academic success (Lange & Fundis, 1994).

Identification with academics has been identified as a possible factor in explaining academic success in students (Finn, 1989; Steele, 1992). In theory, this means that students who are more successful academically should be more motivated to complete their degree because their self-esteem is directly affected by academic

performance. Murtaugh, Burns, and Schuster (1999) found that attrition decreased as first semester grade point average increased. The contrast, then, would mean that those who are not identified with academics have less incentive to excel academically and, as a result, may be at higher risk for academic problems, especially poor grades or failure and even of dropping out all together. If this theory of identification with academics relating to student achievement is valid, this theory could serve as a method of identifying at-risk students by grade point average upon acceptance to college.

Some colleges and universities have an "academic-alert system" to send routine letters to students who are not maintaining satisfactory progress (Mendoza & Corzo, 1996; Beatty-Guenter, 1994). Irvine Valley College conducted a two year study of the effectiveness of mid-semester early alert follow-up procedures designed to help first-semester freshmen having trouble in their classes. The study suggested that none of the outcome measures, such as cumulative grade point average, course pass rate, grade points earned, or college retention after two semesters, differed significantly among the different treatment groups. However, those in the group that received early alert letters had the highest end-of-year retention (81.3%) for full-time students, whereas both advisor contact and early alert letter groups had greater end-of-year retention for part-time students (Rudman, 1992).

College and university faculty are often called upon to mentor at-risk students. Campbell and Campbell (1997) reported that students who were paired with a faculty mentor showed higher grade point averages, more units completed per semester, and lower dropout rates. Because faculty members are being encouraged to mentor students who are at-risk of failing, appropriate faculty training in mentoring is essential. Some suggested areas for training include selecting standardized tests in English, mathematics, and reading, judging the appropriateness of standardized tests for students of different cultures, checking for test reliability and validity, and using interviews and other qualitative techniques for student assessment (Rendon, 1995).

Some retention programs are designed to ease the student's problems with aspects of everyday life while enrolled in college. These programs include assistance in dealing with finances, home and family, transportation, on-campus day care, financial aid, parking and transportation, campus security arrangements, and college health and wellness programs (Beatty-Guenter, 1994).

Social and academic integration and involvement in the college culture are critical to ensuring the retention and academic achievement of students, especially students at risk. This is part of the bonding or connecting process. Participation in an orientation program has been found to be critical to any student's success and to their sense of connection with the institution (Hadlock, Spring 2000).

Research has suggested that, in addition to orientation in a student's first year, a student success course has positive effects on retention, grade point average, and degree completion, if taken in the first year. It has dramatic effects on academically at-risk students in particular (Roueche & Roueche, 1993).

Tutoring is often provided at drop-in centers. The service may also be available through scheduled appointments. Based on their case study analyses, Saunders and Ervin (1984) concluded that effective tutoring programs utilize small-group tutorials rather than one-on-one tutoring as a means of encouraging social integration. They found that the Summer Bridge Program at the University of California-San Diego used a peer support network to help students with the transition to college in the fall. Participating students studied and worked together on academic assignments.

Several other researchers discussed the use of one-on-one and/or small group tutoring in a variety of environments. Okawa (1998) described a university writing center as being the focal point for one-on-one peer tutoring of minority students. Vincent (1993) evaluated the impact of tutoring services offered through the Learning Assistance Center (LAC) at a predominantly Hispanic institution. At the LAC, tutoring services were offered on both an individual and small group basis.

The amount and scope of tutoring varies by institution. Some colleges offer unlimited tutoring in almost every course (provided a knowledgeable tutor is available). Others limit tutoring services to a few courses and/or a few hours. Most evaluations of

tutoring programs have found that students benefit from frequent tutoring contacts, but these studies have not determined if an optimal level of tutoring exists. At the LAC (Vincent, 1993), tutoring was only available to freshmen and sophomores in English, math, biology, chemistry, and social studies courses. The peer-tutoring program at Slippery Rock University (Condravy, 2000) served both regularly admitted and academically underprepared students.

Ritschel (1995) maintained that, where the classroom was at one time a community of students with shared experiences, the classroom of today is composed of individuals with nothing more in common than if they were all waiting at a bus stop. One way of overcoming the lack of community is Supplemental Instruction, which increases academic achievement and retention through collaborative learning and is a useful strategy in promoting a learning community and a connection between peers. In Supplemental Instruction, regularly scheduled, out-of class, peer-facilitated sessions are held in which students have the opportunity to discuss, process, and interact by reading, studying, and preparing for examinations (Martin, Blanc & Arendale, 1996). Moreover, studies have shown that learning communities increase coherence in what is being learned, promote intellectual interaction, and help promote academic and social connections with faculty and students (Naughton, 1993; Tinto, Russo, & Kadel-Taras, 1996). A learning community can be formed through creating the cohort effect by forming study groups in class as well as by creating block programming for students with

common courses (Beatty-Guenter, 1994). McGrath (1996) asserted that for students at risk, successful integration into learning communities sometimes involves a renegotiation of their identity as some students may find that the academic culture conflicts with their home culture. The content of these courses most often includes three general topics: The college experience, academic skill development, and life management. These courses provide the socialization usually lacking in students at risk and helps prepare them for academic success.

Mentoring programs are a successful strategy for connecting the student with institutional representatives, other students, and community members. A major element in a retention program for Black, Hispanic, and Native American students at Texas A&M University is individual support provided by mentors through Project BELONG. All mentors are drawn from the college's full-time and part-time faculty, staff, and administrators. The two main points (matching of mentor with student and mentor training) focus on developing positive relationships with minority students. Workshop training has also emphasized fostering supportive classroom environments for minority students and appropriate support service referrals (Blackwell, 1989).

Several institutions have implemented policies where an academic advisor or academic counselor actively seeks contacts with students considered at risk prior to enrollment (such as students admitted provisionally or on probation) or with students demonstrating poor academic performance, especially during their first semester. This

intensive advisement process is often called intrusive advising. Earl (1998) defined intrusive advising as deliberate, structured intervention at the first sign of academic difficulty in order to motivate the student to seek assistance. Numerous studies have addressed the issue. Earl (1998) described the intrusive advising approach used at Old Dominion University. All probationary first semester students received a letter asking them to contact an academic advisor. Once contact was established, the student was asked to commit to a course of action and continue to see the counselor for follow-up appointments. A three-semester program evaluation showed that students who participated in the advisement sessions showed statistically significant grade point average changes and higher retention rates when compared with a control group.

An intrusive advising program targeting freshmen, evaluated by Glennan and Baxley (1995), showed similar results. The authors determined that the counseling program increased enrollments, reduced attrition rates, and improved academic achievement (as measured by grade point average, courses attempted, and courses completed). Hunziker (1994) conducted a comparable study and found that students who were contacted for advisement and followed the advice provided achieved higher grade point averages than other students.

Trippi and Cheatam (1999) examined an advisement program where the counselors made extraordinary efforts to contact black students enrolled in a predominantly white university. These attempts included repeated phone calls,

handwritten letters, and attempts to establish contact through the students' faculty advisors or roommates. This program was not labeled intrusive by either the institution or Trippi, but it resembles the previously discussed projects in terms of counselors actively pursuing students identified as at-risk either prior to admission or at some point during their college careers.

Among strategies used for counseling are approaches that focus on motivation, locus of control, self-esteem, cognition, and metacognition (Beatty, Guenter, 1994). However, Rendon (1995) asserted that some of the approaches and theories that have guided the thinking about student development may not be appropriate for many minority students. In a report on retention strategies for first-generation students, she noted that institutions must assist students in overcoming psycho-social barriers such as self-doubt, low self-esteem, fear of failure, fear about being perceived as stupid or lazy, anxiety and cultural separation, doubts about being college material, trauma associated with making the transition to college, and unfamiliarity with higher education resulting in being intimidated by the system.

Some studies have found that despite the need for counseling and support, students at risk may persist in the college system simply due to personal resiliency (Laden, 1994). Miles and McDavis (1999) examined the impact of four different orientation methods on African American students' perceptions of future use of the counseling center. They reported that providing an individual orientation session with a

black counselor had the largest impact on perceived future use of services for personal problems. The results also indicated that including a visit to the counseling center as part of the orientation process increased the student's knowledge of available services. Davis (1998) presented a detailed description of the theory and technique used in higher education peer counseling. A major goal of many peer counseling programs is to promote the retention of high-risk students. This is accomplished through developing counseling relationships that incorporate empathy, warmth, and respect. Pulliams (1998) saw the use of peer counselors as a cost-effective strategy. This observation was particularly pertinent during an economic time in which universities needed to recognize and implement cost-effective counseling programs.

Several studies have been conducted to determine the importance and necessity of providing counselors of the same sex and/or same race/ethnicity as the students. The literature did not show conclusive results on either issue. Atkinson, Ponterotto, and Sanchez (1994) examined the counseling preferences of Vietnamese and Anglo-American students and found that neither group of students showed clear-cut preferences.

Roueche and Roueche (1994) advocated directive counseling and placement strategies for working with students at risk. However, counseling departments are being cut back at a time when the need to provide counseling services for these students is increasing. Colleges are using a variety of methods to address the issue of insufficient funds. Some colleges are decreasing their services by eliminating personal counseling

and focusing solely on academic and career advising. Others are referring students to community agencies, relying on the faculty to assist with academic advising, or both. Counseling departments are also increasingly turning to technology for help. College student databases are becoming available on personal computers, as are aptitude and interest inventories.

Summary

There are many strategies, programs, and activities tied to student support services. The research has suggested a variety of plans to aid student retention in college or university level academic study, including developmental advising, culturally specific integration programs, and identifying at-risk students through academic evaluations. In addition, other researchers have stressed that the most important precursor of effective retention is a supportive and encouraging environment to counteract obstacles.

A strong predictor of students' abilities to succeed in higher education to degree completion has been demonstrated to be academic achievement. The grade point average has been accepted as a strong and accurate indicator of academic achievement at all levels of education. As such, academic success can be tied to academic achievement, specifically the grade point average.

Federal TRIO grant programs have been a means to help low achievement students actually do better in college. As has been pointed out in this literature review, as students' academic achievement improves, their chances of completing their college degree improves. Logically, a program developed to help students be better students would likely have a positive impact on their academic achievement. This would include an improvement in grade point averages.

CHAPTER 3

METHODS AND PROCEDURES

Purpose

The purpose of this study was to evaluate the effects of an academic support services unit within a small liberal arts university on the grade point average of students admitted on probation. The focus was specifically to see if grade point averages improved as a result of students utilizing the Academic Center for Excellence at a small, private, liberal arts college in the mid-west.

Population and Sample

There were two populations and a sample evaluated for this study. The first population was comprised of full time freshman students who were admitted on probation and utilized the services of the academic support services unit over a period of 4 academic years (2000-01 through 2003-04). The second population contained full time freshman students admitted on probation over the same time period who did not utilize the academic support services office. The sample was comprised of full time freshman students not on probation when they were admitted, had no need to utilize the academic support services office and, therefore, did not use their services. There were four cohort groups developed from each of these two populations and the random sample (a total of

12 cohorts). The cohorts were drawn from the specific academic years, beginning with the 2000/2001 year, and following with the subsequent academic years of 2001/2002, 2002/2003/ and 2003/2004. Grade point averages were compiled over the fall and spring semesters of the freshman year for all cohort students. The summer terms and short inter-sessions were not included.

The group of cohorts (students who took advantage of the academic advising and other services available at the Academic Center for excellence) was identified from the records of the advising office itself. The grade point averages of the students in these cohorts were compiled for a group average, using the fall and spring semesters' grade point averages for two concurrent terms (e.g., fall 2000 and spring 2001). This part of the study was limited to the grade point averages of students who utilized this service. Students on file who subsequently left school were included in this study, as long as their records were available. The students' age, race, and gender were not considered.

The second group of cohorts was also drawn from records of the Academic Center for Excellence office. These were students admitted on probation but who did not utilize the services of that unit. The Academic Center for Excellence keeps records on all probationary students. The grade point averages for these students were tracked in the same manner as the first group. The two groups were mutually exclusive. This group, as with the first group, was not evaluated on the basis of age, race or gender.

These two groups were then compared to a sample of students who were not admitted on probation. Students were identified by the director and staff of the Academic Center for Excellence from the registrar’s records. These students were all the regular admission freshman students who were not provisional or on probation. These students did not need the services of the Academic Center for Excellence. A random sample from this group was selected from this data for this study. Using Randomizer.org, a total of 300 students’ records were selected for analysis. They were the standard students, and were evaluated in the same manner as the other two groups. The cohort data are presented in Table 1.

Table 1.

Population and sample by academic year of admission.

Admission Type	2000-01	2001-02	2002-03	2003-04
Probation No service	24	11	10	24
Probation With service	47	56	58	60
Regular admission	75	75	75	75

In examining the results, it was hypothesized that the differences between the three groups would be that the increases in grade point averages of the control groups would be lower on average than that of the group taking advantage of the services

available from the Academic Center for Excellence. The null hypothesis was that there would be no significant differences in GPA improvement among the three groups.

Hypotheses

The following question and null hypotheses were used to guide the study:

Do students who are admitted on probation and who utilize the Academic Center for Excellence show more improvement in their grade point averages from fall semester to spring semester than either (a) probationary students who do not utilize the Academic Center for Excellence services or (b) students granted regular admission?

HO₁: There will be no statistically significant improvement in grade point averages from fall semester to spring semester for students admitted on probation who utilize the Academic Center for Excellence.

HO₂: There will be no statistically significant improvement in grade point averages from fall semester to spring semester for students admitted on probation who did not utilize the Academic Center for Excellence.

HO₃: There will be no statistically significant change in grade point averages from fall semester to spring semester for students granted regular admission.

HO₄: There will be no statistically significant difference between the spring semester grade point averages of probationary students who utilized the Academic Center

for Excellence and probationary students who did not utilize Academic Center for Excellence.

HO₅: There will be no statistically significant difference between the spring semester grade point averages of probationary students who utilized the Academic Center for Excellence and students granted regular admission.

HO₆: There will be no statistically significant difference between the spring semester grade point averages of probationary students who did not utilize the Academic Center for Excellence and students granted regular admission.

Setting

The Director of the Academic Center for Excellence (the academic support services unit) at the college being studied in the mid-west agreed to provide information for this study. This particular institution has an open admissions policy. There is no criterion for grade point average, no minimum SAT or ACT score, and no admissions interview. If the entering student's ACT score is below 18, that student is admitted provisionally and on probation. According to the Director of the Academic Center for Excellence, approximately 30% of all incoming freshman begin their college career on probation at this institution and are referred to the Academic Center for Excellence. Use of the Center is not required. All probation students, however, are prevented from enrolling in classes each term until they receive permission from appropriate staff. The

staff of advisors in the Academic Center for Excellence is authorized to release the students in order for the student to register for classes each semester. The students must visit the center and speak with an advisor before the students can be released.

The Academic Center for Excellence offers many services for students admitted on probation. These services are initiated with a signed contract or agreement between the center and the student. Though it is not mandatory that students participate in the Academic Center for Excellence provided services, any student on probation is required to obtain permission from the Academic Center for Excellence staff to register for classes each semester.

The services offered by the Academic Center for Excellence begin with academic advisement and support for the student. This includes meetings with students to evaluate their progress toward their respective degrees. In addition, the Center offers help with course descriptions, an audit of what classes remain for the student to complete the degree, and semester by semester plans for when the required courses should be taken and what elective classes are most appropriate for particular students. Should a student have difficulty with a class or classes, there is guidance available for the student as to his best course of action to avoid failing that class.

Individualized tutoring services are also available for students on probation through ACE. Should students be struggling academically, tutors (usually peers who have excelled in that field) are provided at no charge. In addition, developmental classes

are routinely provided each semester for students who have a deficiency in areas such as mathematics, reading, and English. In addition to these classes, ACE offers a student success class and a class in critical thinking.

Other services of ACE include (a) career-counseling, (b) referrals to campus and community resources, (c) and assistance with financial aid. The Academic Center for Excellence also controls and operates the new student orientation program.

Research Design

The two populations and the sample were divided into four cohorts by academic years: 2000-2001, 2001-2002, 2002-2003, and 2003-2004. The fall and spring semesters of these academic years were selected. The first population consisted of the students admitted on probation who utilized the services of the Academic Center for Excellence. The second population was composed of students admitted on probation who did not utilize the Academic Center for Excellence. The third group was made up of a sample of students not admitted on probation who did not need the Academic Center for Excellence. This third group was a random sample selected from all regular admission students.

The design is a two between subjects and one within subjects model. The academic year is a four-level independent variable. The three levels of the students' type

of admission is an independent variable. As there are two semesters considered, there are two levels of independent variables. The dependent variable is the two levels of semester grade point averages. There are different students for each academic year and each type of admission.

Data Collection

The data were provided by the Academic Center for Excellence. No personal identifiers were associated with the data. The data were the grade point averages of individual students in the defined groups. The students were listed only as “student 1,” “student 2,” etc. Included with data for each student were grade point averages for fall and spring terms.

Students admitted on probation are defined as students entering the university with an ACT score (or an equivalent SAT score) below 18. Colleges and universities commonly use ACT or SAT scores to make admissions decisions. Both the ACT and the SAT are considered valid and reliable predictors of a student’s first and second years in college. This particular school has an open admissions policy, and offers admission to anyone who applies. Results of the ACT or SAT are required, and students whose scores are below the required level are provisionally admitted. This places them on academic probation in their first semester.

Students on regular admission status are in two groups: One with an ACT score (or equivalent SAT score) of 18 to 24, and the second with an ACT score (or equivalent SAT score) of 25 or higher. These two groups were combined into one group and a random sample selected from the combined groups, using Randomizer.org. This website allows the user to express how many sets of numbers are to be generated, how many numbers to preset, the range of the numbers, whether or not each number within each set is to remain unique, and whether or not to sort the outputted numbers. In this study, a total of 300 unique students were selected by this method.

Data Analysis

The data analysis for this study required the calculation of the means and standard deviations of grade point averages for each of the cells for the fall semester and then for the spring semester. The grade point averages for both fall and spring semesters served as the dependent variable. The independent variables were the academic years (four levels), type of admission (three levels), and the semesters (two levels). The grade point averages are on a scale of 0.00 to 4.00.

A comparison of the means of the grade point averages for the fall term among the three types of students was made for each academic year. For each year, there were three differences between three means. A one-way analysis of variance was run to compare the means and standard deviations of all three groups. The same was done for

the spring semester. The second semester (the spring semester) was of primary interest, and the mean grade point average of the three groups was compared between the three groups. This was done for each academic year cohort.

The Academic Center for Excellence participants' grade point averages can conceivably be attributed to other variables, such as personal motivation, different instructors' styles of delivery of information in the classroom, and the individual student's own acclimation to the college experience. Students may develop a stronger relationship with a particular professor, as an example, or make a decision to increase their study time or improve their study habits. Results may also be attributed to the participant's adjustment to the university, or even that participants may take relatively easier courses during a given academic year. These items were not measured or evaluated for this study.

CHAPTER 4

DATA ANALYSIS

Introduction

The purpose of this chapter is to present the findings of the data analysis for this study. All statistical analyses were calculated on the SPSS 11.5 statistical software. The purpose of this study was to evaluate the effects of the student support services program on the academic achievement of students admitted on probation to a private liberal arts university located in the mid-west. The measure of achievement of interest is the grade point averages, by academic year cohort, of students admitted provisionally, and thus on probation, as compared to students who entered the university without provision. The grade point average is of interest because it is a predictor of student academic achievement.

The interest of this study was whether or not students who are admitted on probation and who utilize the academic support offices of the university are more likely to improve their grade point average, and be removed from probation, than students admitted on probation who do not seek assistance from the academic support service offices. The premise was that the grade point averages of students admitted on probation

would improve as a result of the services offered through the academic support services unit of the college, if the probationary students utilized those services.

This chapter is divided into three sections. The first section contains a description of the populations in the data collection. The second section contains the results of the statistical analysis of each of the cohort groups' grade point averages over the fall and spring semester of their first academic year. An analysis of the three groups together by cohort year is presented in section three.

Population of this Study

There were 2 populations and a sample (as seen in Table 2) of students from the college selected for this study. The populations were students admitted provisionally because their ACT scores were below 18. These students were automatically on probation in their first semester, and would remain so until their cumulative grade point averages reached 2.0 or above. Of these students, one population utilized the services of the Academic Center for Excellence (which is the student support services unit of this particular college) while the second population did not. The sample consisted of students who were admitted without provision, as their ACT scores were 18 or above. Each of these populations and the sample was divided into cohorts by academic year of admissions, beginning with the fall of 2000.

Table 2.

Population and sample of the study.

Category	population
Provisional admission with no service	69
Provisional admission with service	221
Regular admission sample*	300

*Note: 300 students were randomly sampled from a population of 1017 students.

The ACT scores were significant because the research suggested students with higher ACT scores typically do very well in the first semester, and that these students will have higher grades throughout their college career (Kutz, 2003). Nettles, Thoeny and Gosman (1986) reported that ACT scores were of particular interest to colleges and university admissions criteria as predictors of academic achievement, even in schools with open admissions policies.

The grade point averages were significant because they are frequently used as a predictor of academic success, which has been shown to be a factor in whether or not students remain in college to the completion of their degree. McGrath and Braunstien (1997) found that first semester grade point average was by far the most significant predictor of retention. Hu and St. John (2001) found that African American, Hispanic,

and Caucasian students with a “C” average were less likely to remain in school from the fall semester to the completion of the spring semester than students with a “B” average.

Data Analysis

The first step in data analysis was to examine the differences in the grade point averages of the cohorts. Descriptive statistics were used for this evaluation. Of interest was whether or not the second semester mean grade point average increased from the first semester mean grade point average each of the cohorts.

The first population considered consisted of students admitted on probation over a 4 year period who did not utilize the services of the Academic Center for Excellence. The results of this analysis are presented in Table 3.

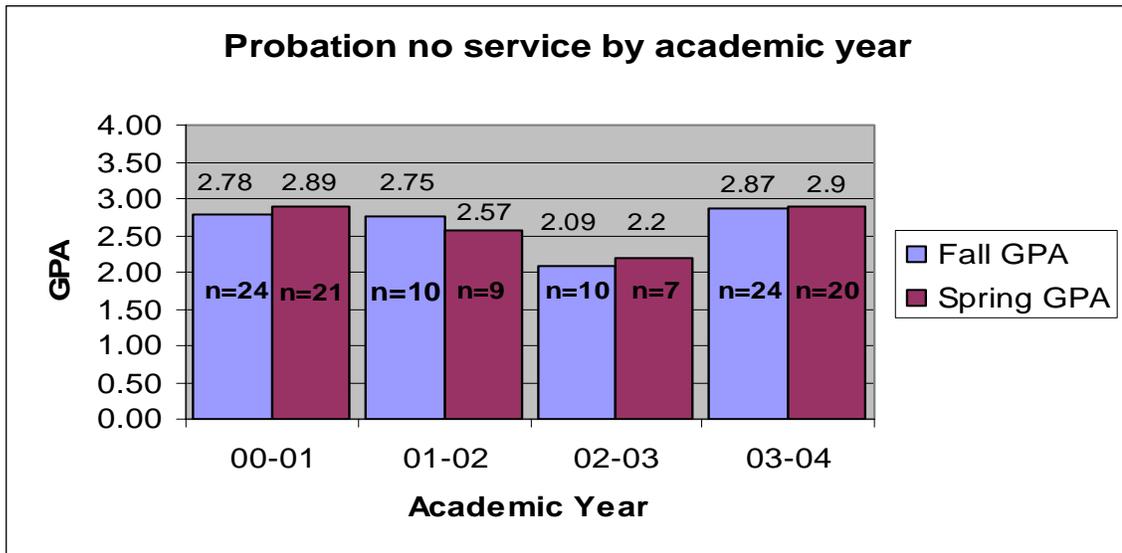
Table 3.

Mean GPA for each semester for probation students who received no service.

Probation no service population	Fall GPA	Spring GPA
Valid	67	57
Missing	2	12
Mean	2.6606	2.7588
Standard Deviation	0.8931	0.6614

In the evaluation of all academic years' grade point averages for the students admitted on probation who did not receive services (n=69), the mean grade point average for the first semester was 2.6606, and the mean second semester grade point average was 2.7588. There was an increase in grade point averages between all cohorts from the first semester to the second semester for students admitted on probation who did not utilize the student support services programs, as illustrated in Figure 1.

Figure 1.



First and second term GPA by academic year for provisional admission students who received no service.

When evaluating the students admitted on probation who did avail themselves of the services of the Academic Center for Excellence, all cohorts (n=221) had a mean grade point average of 2.2072 for the fall semester, and a mean grade point average of 2.2265 in the spring semester, as shown in the table 4.

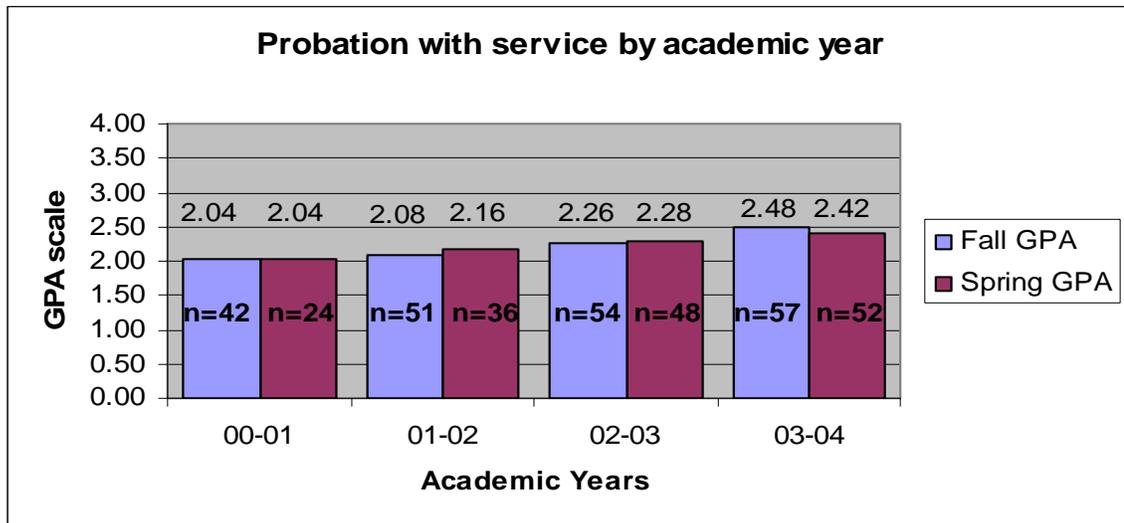
Table 4.

Mean GPA for each term of probation students who received services.

Probation w/ service population	Fall GPA	Spring GPA
Valid	205	178
Missing	16	43
Mean	2.2072	2.2265
Standard Deviation	0.8931	0.8204

Although not significant, there was an increase in grade point averages from the fall semester to the spring semester, as Figure 2 illustrates.

Figure 2.



First and second term GPA by academic year for provisional admission students who received service.

The sample was comprised of students who were regular admissions and not on probation, thus not needing the programs available from the Academic Center for Excellence. A random sample was selected from this group. In this study group (n=300), the mean grade point average in the fall semester was 3.1564. The mean grade point average in the spring semester was 3.1325. There was a slight decrease in grade point averages from the fall semester to the spring semester in the regular, no probation

admissions group, but the decrease was not statistically significant. The data are presented in Table 5.

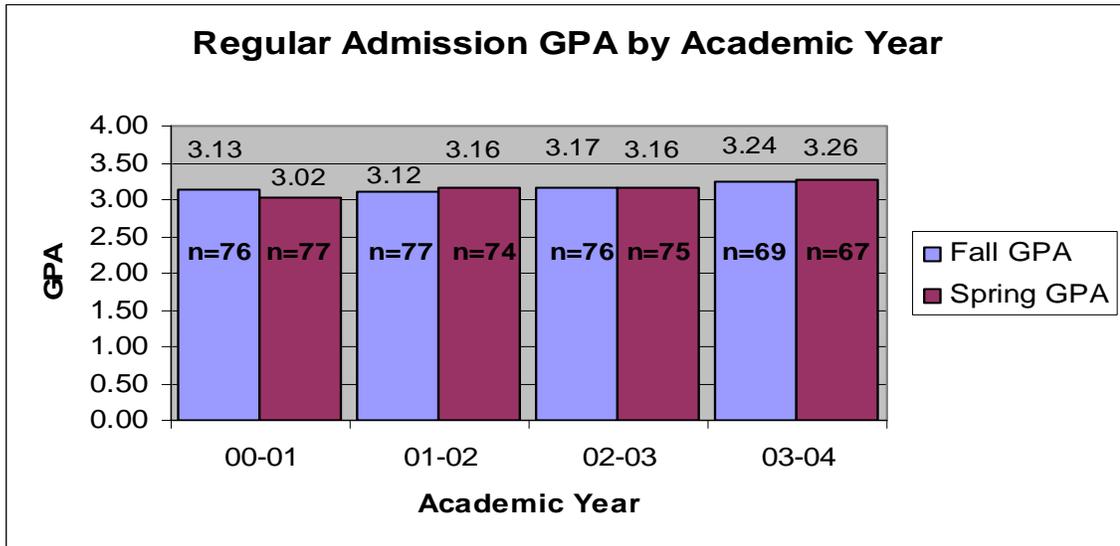
Table 5.

Mean GPA for each term of regular admission students.

Regular admission population	Fall GPA	Spring GPA
Valid	299	295
Missing	1	5
Mean	3.1564	3.1325
Standard Deviation	0.6439	0.6538

As can be seen in Figure 3, students entering this college on full admission status, no probation and no need for the services of the Academic Center for Excellence, maintain respectable grade point averages over two semesters.

Figure 3.



First and second term GPA by academic year for regular admission students.

Comparing Each Cohort by Semester

When comparing all of the populations and the sample against each other, using SPSS 11.5 to determine the mean of each cohort within the three admission types, no statistically significant differences between the grade point averages of the fall semester and spring semester of all probation students were found. As was expected, there were differences between the regular admission students and all probation students. The mean grade point average of the students admitted on probation who did not utilize the services of the Academic Center for Excellence increased .0982 points. The mean grade point

average of the students admitted on probation who utilized the service of the Academic Center for Excellence increased .0193 points. The mean grade point average of the regular admission sample decreased .0212 points. None of these changes were statistically significant.

Statistical significance is another way of saying that the effect that is being reported could be found by chance less than 5 times in 100. Thus, a *p*-value of .05 or less means there is statistical significance. Statistical significance is a function of the difference between the means (one group vs. a comparison group) and the standard deviation. Additionally, the chance for statistical significance improves the more subjects that are in the comparison.

A one-way analysis of variance was conducted to evaluate the relationship between the grade point averages in the fall semester of students admitted on probation who utilized the services of the academic support unit and those who did not, both probation and regular admission students. The results are displayed in Table 6. The students who did not use the services included both probation students and regular admission students. There were three independent variables: Year of admission (4 levels), type of admission (3 levels), and semester. The dependent variable was the grade point averages in the fall term. There were different students in each year, and different students in each type of admission. The ANOVA was significant, $F(2,569)=95.06$,

$p < 0.05$. Even with the Tukey HSD correction for multiple comparisons, all three means were statistically significant from each other.

Table 6.

ANOVA summary mean GPA between all groups in fall semester at 95% CI.

Source	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Between	2	110.589	55.295	95.06	0.0
Within	569	330.965	0.582		
Total	571	441.554			

There was a significant difference found between the means of the grade point averages for the fall semester of the regular admission sample and the other two populations, and a significant difference in the grade point averages in the fall term between the two probation admissions populations. It was expected that there would be differences in grade point averages between the three groups. This established the baseline to evaluate for improvement in grade point averages.

A one-way analysis of variance was then conducted to evaluate the relationship between the grade point averages in the spring semester of students admitted on probation who utilized the services of the academic support unit and those who did not (Table 7). The students who did not use the services included both probation students

and regular admission students. There were three independent variables: Year of admission (4 levels), type of admission (3 levels), and semester. The dependent variable was the grade point averages in spring term. There were different students in each year, and different students in each type of admission. The ANOVA was significant, $F(2,527)=89.85, p<0.05$. Using the Tukey HSD corrections for multiple comparisons, all three means were again statistically significant from each other.

Table 7.

ANOVA summary mean GPA between all groups in spring semester at 95% CI.

Source	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Between	2	91.589	45.956	89.85	0.0
Within	527	296.540	0.511		
Total	529	361.452			

There was a significant difference in the means of the grade point averages of the fall semester of the regular admission sample from the other two populations, and a significant difference in the grade point averages in the fall term between the two probation admission populations. The one-way ANOVA did not support the hypothesis that the students admitted on probation who utilized the services of the academic support

unit would demonstrate an increase in grade point average from students who did not utilize the services of the Academic Center for Excellence.

On the basis of the means for each type of admission, it was expected that the regular admission sample would not demonstrate any significant differences in grade point averages from the fall semester to the spring semester. It was also expected that there would be a difference in grade point averages from the first semester to the second semester between the probationary populations. Though there were differences, they were not statistically significant, nor were there any indications that the Academic Center for Excellence made any impact in the academic achievement of the probationary populations.

Comparing Each Type of Admission

To compare the three types of admissions, the data were analyzed by semester, and then compared to each term by descriptive statistics. The means were compared between the two semesters by populations and sample cohorts, along with the standard deviations.

A one-way analysis of variance was conducted to evaluate the relationship between the grade point averages from the fall to spring semesters of students admitted on probation who did not utilize the services of the academic support unit (Table 8). The students who did not use the services included both probation students and regular

admission students. There were three independent variables: Year of admission (4 levels), type of admission (3 levels), and semesters (2 levels). The dependent variable was the grade point averages in each term. There were different students in each year, and different students in each type of admission. The ANOVA was not significant, $F(1,122)=.53, p>0.05$.

Table 8.

ANOVA summary mean GPA between fall and spring terms for students admitted on probation who did not utilize support services at 95% CI.

Source	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Between	1	0.297	0.297	0.53	0.468
Within	122	68.409	0.561		
Total	123	68.706			

There was no significant difference between the grade point averages in the fall semester and the spring semester of the probationary population who did not utilize the services of the academic support unit. The one-way ANOVA did not support the hypothesis that the students admitted on probation who utilized the services of the academic support unit would have an increase in spring semester grade point average that

was more of an improvement than either (a) students admitted on probation who did not utilize the services of the Academic Center for Excellence or (b) students granted regular admission.

A one-way analysis of variance was conducted to evaluate the relationship between the grade point averages from the fall to spring semesters of students admitted on probation who utilized the services of the academic support unit. The students who did not use the services included both probation students and regular admission students. There were three independent variables: Year of admission (4 levels), type of admission (3 levels), and semesters (2 levels). The dependent variable was the grade point average in each term. There were different students in each year, and different students in each type of admission. The ANOVA was not significant, $F(1,383)=.05$, $p>0.05$, as seen in Table 9.

Table 9.

ANOVA summary mean GPA between fall and spring terms for students admitted on probation who did utilize support services at 95% CI.

Source	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Between groups	1	0.036	0.036	0.05	0.826
Within groups	383	283.325	0.740		
Total	384	283.361			

There was not a significant difference between the grade point averages of the fall semester and the spring semester of the probationary population who utilized the services of the academic support unit. The one-way ANOVA did not support the hypothesis that the students admitted on probation who utilized the services of the academic support unit would increase their grade point averages from the fall to the spring semester.

Results of Hypotheses

The following question and null hypotheses were used to guide the study:

Did students who were admitted on probation and who utilized the Academic Center for Excellence show more improvement in their grade point averages from fall semester to spring semester than either (a) probationary students who did not utilize the

Academic Center for Excellence services or (b) students granted regular admission? The answer to this appears to be no.

HO₁ : There will be no significant improvement in grade point averages from fall semester to spring semester for students admitted on probation who utilize the Academic Center for Excellence. This study failed to reject this null.

HO₂ : There will be no significant improvement in grade point averages from fall semester to spring semester for students admitted on probation who did not utilize the Academic Center for Excellence. This study failed to reject this null.

HO₃: There will be no significant change in grade point averages from fall semester to spring semester for students granted regular admission. This study failed to reject this null hypothesis.

HO₄: There will be no significant difference between the spring semester grade point averages of probationary students who utilized the Academic Center for Excellence and probationary students who did not utilize Academic Center for Excellence. This study failed to reject this null.

HO₅: There will be no significant difference between the spring semester grade point averages of probationary students who utilized the Academic Center for Excellence and students granted regular admission. This study demonstrated a significant difference between the grade point averages of these two groups of students in both semesters. Thus, this study rejects this null.

HO₆: There will be no significant difference between the spring semester grade point averages of probationary students who did not utilize the Academic Center for Excellence and students granted regular admission. This study demonstrated a significant difference between the grade point averages of this population and sample of students in both semesters. Thus, this study rejects this null.

CHAPTER 5

SUMMARY, DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

Statement of the Problem

The purpose of this study was to evaluate the impact of an academic support services unit on students admitted on probation to a small, private, liberal arts university. Of interest was whether or not students who are admitted on probation, but utilize the academic support offices of their college or university, are more likely to improve their grade point average and be removed from probation than students who do not seek assistance from the academic support service offices. It was thought that students who utilized the academic support service office would be better prepared for their classes each term than those who did not take advantage of the academic support services. The second semester grade point averages of those students were expected to increase from the first semester.

Methodology

A quantitative research method was used to search for distinctions between the grade point averages of the two probation admission student populations and a sample population of regular admission students. The analysis was done by descriptive statistics. Only regular, non-provisional, students were selected randomly. There were four levels

of independent variables in the cohort academic years. There were also three levels of independent variables in the type of admission. There were two levels of independent variables in the two semesters of grade point averages. The means and standard deviations were compared for each type of admission.

When running the analysis in SPSS 11.5, if a cell contained a “0” or no data at all, the software was set to treat it as missing data. There was no description of these cell’s contents provided by the Director of the Academic Center for Excellence. The students may have not attended that semester at all, or may have failed all classes for that term. This study was designed to specifically analyze the differences, if any, that existed in the grade point averages of the three admission types between academic year cohorts and fall and spring semesters.

Discussion

The college selected for this study has an open admissions policy. This means anyone who applies is admitted. Open admissions policies were adopted more and more in the latter half of the 1960s and throughout the 1970s (Nettles, Thoeny, & Gosman, 1986). The purpose was to encourage more people to pursue a college education. On the basis of extensive surveys, McDaniel and McKee (1971) estimated 80% of all American colleges and universities had adopted open admissions policies by 1970. There are many reasons higher education administrators embraced the open admissions policies,

according to McDaniel and McKee (1971), including funding formulas based on student credit hours, the Great Society Programs of the 1960s, and efforts to desegregate higher education.

The Academic Center for Excellence of this college is a TRIO grant program. TRIO programs can be divided into four categories of development and expansion: The creation in the 1960s, the first expansion in the 1970s, the reauthorization in 1980 which further developed the programs, and since the 1990s in which the programs, though continued, may be in jeopardy. TRIO programs have been given credit for changing the lives of countless students, many of which accomplished their dreams of becoming doctors, lawyers, politicians, and businessmen. Access and retention programs and services have been seen as essential in the Federal strategy to ensure opportunities for education in this country (Credle & Dean, 1991).

As has been noted in the literature, grade point average, as a measure of academic achievement, is frequently used to establish predictive information about college students' abilities to remain in school until degree completion. Various empirical studies (Daugherty & Lane, 1999; Herndon, 1984; Pantages & Creedon, 1978) have found connections between students' grade point averages and students' likelihood of staying in school to degree completion.

The idea that grade point average and degree completion are correlated would seem to be obvious. The desirability of finding ways to help students' achieve academically would also seem obvious. This is the point of the Academic Center for Excellence, and other student support services programs.

Conclusions

One of the requirements of Federal TRIO grant programs is that they are voluntary with regard to participation. Although it may be better for students who are admitted on probation to utilize the services available from the Academic Center for Excellence, the Center cannot require participation from these students. Even if there were a means by which the university could require full participation of all students admitted provisionally, there is no statistical evidence to indicate that probationary students would demonstrate improved academic achievement. Neither is there statistical evidence to suggest that the lack of such services would make a difference in academic achievement of students admitted on probation. Because students for this study did not necessarily participate in all the services offered by the Academic Center for Excellence, it can not be concluded that the Academic Center for Excellence had no impact on the academic achievement of some probationary students. What this study concluded was that the Academic Center for Excellence appeared to have no impact on increasing the mean grade point averages of students admitted on probation. Based purely on the

findings of this study, the Academic Center for Excellence services appear to have little or no positive effect on the grade point averages of probationary students who utilize them. However, it is possible that the probation students attaining a 2.0 grade point average after the first semester might not have utilized the Academic Center for Excellence during the second semester. It is also possible that their achievement of the 2.0 grade point average might not have been possible without Academic Center for Excellence. Further, it is unknown which Academic Center for Excellence services various students used. Some could have been more helpful than others with grade point average.

Recommendations

The following are recommendations for further study and research:

1. Duplication of this study with the inclusion of a qualitative element to see if student satisfaction and attitude have an impact on the grade point averages.
2. A replication of this study at other institutions of similar size and milieu to ascertain if there are similarities between probationary students in those institutions.
3. A comparison of small colleges and larger universities could suggest whether or not there is a strong link between academic achievement and different student support services programs.

4. A follow up study conducted at this university that investigates the association between non-academic factors not examined in this study and academic achievement.

5. Additional studies of the probationary students that include information concerning demographics, types of classes taken by the probationary students, and whether or not these students participate in all of the services offered by the Academic Center for Excellence.

6. Inclusion of information that could evaluate causality as the current study can only make suggestions about what the program may or may not help probationary students accomplish academically.

LIST OF REFERENCES

- Allen, D. (1994, May). The Illiad and the Odyssey of student attrition. Paper presented at the 34th Annual Forum of the Association for Institutional Research, New Orleans, LA. (ERIC Document Reproduction Service No. ED 373 629).
- Althen, G. (1995). *The handbook of foreign student advising* (Rev. Ed.). Yarmouth, ME: Intercultural Press, Inc.
- Artman, J., & Gore, R. (1992, May). Meeting individual needs fosters retention. Paper presented at the 14th Annual International Conference at the National Institute for Staff and Organizational Development on Teaching Excellence and Conference Administrators, Austin, TX. (ERIC Document Reproduction Service No. D349 070).
- Astin, A. (1975). *Preventing students from dropping out*. San Francisco: Jossey-Bass, Inc.
- Atkinson, D., Ponterotto, J., & Sanchez, A. (1994). Attitudes of Vietnamese and Anglo-American students toward counseling. *Journal of College Student Personnel*, 25(5), 448-452.
- Bach, S., Bernstein, G., & Vaughters, B. (1996 June 21-24). ADVICE: A catalyst for change in student advising and student tracking. Paper presented at the Summer Institute—Creating Culture for Institutional Effectiveness, Vail, CO. (ERIC Document Reproduction Service No. ED 345 825).
- Backhus, D. (1989). Centralized intrusive advising and undergraduate retention. *The NACADA Journal*, 9(1), 39-45.
- Beatty-Guenter, P. (1994). Sorting, supporting, connecting, and transforming: Retention strategies at community colleges. *Community college Journal of Research and Practice*, 18(2), 113-129.
- Belcheir, M. J. (1998). *Student satisfaction with academic advising*. Research Report. Boise State University Office of Institutional Assessment. (ERIC Document Reproduction Service No. HE031654).

- Belcheir, M. & Michener, B. (1997). Dimensions of retention: Findings from quantitative and qualitative approaches. (ERIC Document Reproduction Service No. ED 414 869).
- Blackwell, J. (1989). Faculty mentoring minority. In M.C. Adem & E. Wadsworth (Eds.) report of the Stoney Brook Conference (pp. 25-43).
- Brawer., F. B. (1996). Retention-attrition in the nineties. Los Angeles, CA: ERIC Clearinghouse for Community Colleges. (ERIC Document Reproduction Service No. 393 510).
- Bogart, M., & Hirshberg, R. (1993). *A holistic approach to student retention*. Paper presented at the 6th annual Midwest Regional Reading and Study Skills Conference, Kansas City, MO. (ERIC Document Reproduction Service No. ED 355 499).
- Campbell, T. & Campbell, D. (1997). Faculty/student mentor programs: Effects on academic performance and retention. *Research in Higher Education*, 38, 727-42.
- Catterall, J. & Stern, C. (1986). The effects of alternative school programs on high school completion and labor market outcomes. *Educational evaluation and policy analysis*, 8, 77-86.
- Condrary, J. (200). Learning together: An interactive approach to tutor training. Washington, DC: American Association of State Colleges and Universities. (ERIC Document Reproduction Service No. ED 341 323).
- Cook, L. (1996). Building a path: Orientation as the critical link to student success. In J.N. Hankin (Ed.), *Opportunity and access for America's first-year students*. Columbia, SC: National Research Center for the Freshman Year Experience and Students in Transition, University of South Carolina (ERIC Reproduction Service No. ED 393 486).
- Costello, R. (Ed.). (2000). *The American heritage college dictionary (3rd ed.)*. New York: Houghton Mifflin Company.
- Credle, J., & Dean, G. (1991). A comprehensive model for enhancing black student retention in higher education. *Journal of Multicultural Counseling & Development*, Oct 91 Vol 19 Issue 4, p. 158, 8p.

- Cross, P. (1981). Factors affecting black students' persistence in college. In G. E. Thomas (Ed.), *Black students in higher education: Conditions and experiences in the 1970s*. Westport, CT: Greenwood Press.
- Cross, P. (1976). *Accent on learning*. San Francisco: Jossey-Bass.
- Cuseo, J. (1993). *The freshman orientation seminar: A research-based rationale for its value, delivery, and content* (Monograph No. 4). Columbia, SC: University of South Carolina, National Resource Center for the Freshman Year Experience.
- Cuseo, J., & Barefoot, B. (1996). A natural marriage: The extended orientation seminar in the community college. In J. N. Hankin (Ed.), *Opportunity and access for America's first year students*. Columbia, SC: National Research Center for the Freshman Year Experience and Students in Transition, University of South Carolina. (ERIC Reproduction Service No. ED 393 486).
- Daugherty, T., & Lane, E. (1999). A longitudinal study of academic and social predictors of college attrition. *Social Behavior and Personality*, 1999, 27, 4, 355-362.
- Davis, A. (1998). Peer counseling in higher education: Essentials and practice. LaGrande, OR. Eastern Oregon College (ERIC Document Reproduction Service No. ED 332 611).
- Douglas, K. (1998). Impressions: African American first-year students' perceptions of a predominately white university. *Journal of Negro Education*. 1998, Issue 4, 416-30.
- Duderstadt, J. J. (2000). *A university for the 21st century*. Ann Arbor: The University of Michigan Press.
- Dworkin, S. (1996). Persistence by 2-year college graduates to 4-year colleges and universities. *Community College Journal of Research & Practice*, 20, 445-54.
- Earl, W. (1998). Intrusive advising of freshman in academic difficulty. *NACADA Journal*, 8(2), 27-33.
- Evans, N., Forney, D., & Guido-DiBrito, F. (1998). *Student development in college: Theory, research, and practice*. San Francisco: Jossey-Bass.

- Fields, H. R. & Barrett, A. (1996). *Improving and developing the academic advising process at Grambling State University to enhance students' academic success*. Revised Ed.D. Practicum, Nova-Southeastern University. (ERIC Document Reproduction Service No. HE033889).
- Fielstein, L. L. (1989). Student priorities for academic advising: Do they want a personal relationship? *The NACADA Journal*, 9(1), 33-35.
- Finn, J. (1989). Withdrawing from school. *Review of Educational Research*. S9(2), 117-142.
- Ford, J.L. (1991). A caring attitude. *The NACADA Journal* 13(3). From <http://www.nacada.ksu.edu/Clearinghouse/AdvisingIssues/Caring-Attitude.htm>.
- Glasser, W. (1975). *Reality Therapy: A new approach to psychiatry*. New York: Harper & Row.
- Glennan, R., & Baxley, D. (1995). Reduction of attrition through intrusive advising. *NASPA (National Association of Student Personnel Administrators) Journal*, 22(3), 10-14.
- Gordon, V. (1997). Advising undecided/exploratory students. In M. Howland, E. Anderson, W. McGuire, D. Crockett, & J. Kaufmann (Eds.), *Academic advising for student success and retention*. Iowa City, IA: USA Group Noel-Levitz.
- Grimes, S. K. (1997). Underprepared community college students: Characteristics, persistence, and academic success. *Community college journal of research & practice*, 21, 47-56.
- Grosset, J. (1997). *Beating the odds: Reasons for at-risk success at community college of Philadelphia*. Institutional research report No. 93. Philadelphia Community College, PA. (ERIC Document Reproduction Service No. ED 411 933).
- Grunder, P. G., Hellmich, D. M. (1996). Academic persistence and achievement of remedial students in a community college's college success program. *Community college review* 24(2). EBSCOhost document 9701212718.

- Hadlock, H. (2000). Orientation programs: A synopsis of their significance. *The Journal of College Orientation and Transition*, 7(2), 27-32.
- Herndon, S. (1984). Recent findings concerning relative importance of housing to student retention. *Journal of College and University Student Housing*, 14, 1, 27-31.
- Hu, S., & St. John, E. (2001). Student persistence in a public higher education system: Understanding racial and ethnic differences. *Journal of Higher Education*, 72, 3, 266-286.
- Hunziker, C. (1994). *Evaluation of the individualized study program: Early warning system*. Davis, CA: University of California.
- King, N. S. (2002). Reporting through Academic vs. Student Affairs. Retrieved -insert today's date- from the *NACADA Clearinghouse of Academic Advising Resources* Web site:
<http://www.nacada.ksu.edu/Clearinghouse/AdvisingIssues/acavsstu.htm>.
- Kutz, B. (2003). *What affects first semester performance?* Poster Session/333, 2003 National Academic Advising Association National Conference. NACADA website: <http://www.nacada.ksu.edu/>.
- Lange, J., & Fundis, R. (1994). *Characteristics of successful learning center students*. Hillsboro, MO: Jefferson College. (ERIC Document Reproduction Service No. ED 368 429)
- Laden, B. (1994), April 4-8). Defying the odds: Academic performance toward transfer of Hispanic first-year community college students. Paper presented at the Annual Meeting and Exhibit of the American Educational Research Association, New Orleans, LA. (ERIC Document Reproduction Service No. ED 368 406).
- Martin, D., Blanc, R., & Arendale, D. (1996). Supplemental instruction: Supporting the classroom experience. In J.N. Hankin (Ed.), *The community college: Opportunity and access for America's first year students*. Columbia, SC: National Research Center for the Freshman Year Experience and Students in Transition, University of South Carolina. (ERIC Document Reproduction Service No. ED 393 486).

- McDaniel, R., & McKee, J. (1971). *An evaluation of higher education's response to black students*. Bloomington: Indiana University. In Nettles, M., Thoeny, A., & Gosman, E. (May/June, 1986). Comparative and predictive analysis of black and white students' college achievement and experiences. *The Journal of Higher Education*, 57(3), 289-318.
- McGrath, D. (1996). Teaching new students: A unique time in a unique setting. In J.N. Hankin (Ed.), *Opportunity and access for America's first year students*. Columbia, SC: National Research Center for the Freshman Year Experience and Students in Transition, University of South Carolina. (ERIC Document Reproduction Service No. ED 393 486).
- McGrath, M. & Braunstein, A. (1997). The prediction of freshman attrition: An examination of the importance of certain demographic, academic, financial, and social factors. *College Student Journal*, 396-408.
- Mendoza, J. & Corzo, M. (1996, June 23-26). Tracking/monitoring program to enhance multicultural student retention. Paper presented at the Consortium for Development's Annual Summer Institute, Charleston, SC (ERIC Document Reproduction Service No. ED 399 999).
- Miles, G., & McDavis, R. (1999). Effects of four orientation approaches on disadvantaged black freshman students' attitudes toward the counseling center. *Journal of College Student Personnel*, 23(5), 413-418.
- Murtaugh, P., Burns, L., & Schuster, J. (1999). Predicting the retention of university students. *Research in Higher Education*, 40, 3, 355-371.
- Naughton, P. (1993). Vocational education preparation. *Community College Journal of Research and Practice*, 17(4), 309-314.
- Nettles, M., Thoeny, A., & Gosman, E. (May/June, 1986). Comparative and predictive analysis of black and white students' college achievement and experiences. *The Journal of Higher Education*, 57(3), 289-318.
- Nielsen, N., & Chambers, G. (1989). Keeping the door open for vocational students. *Community/Junior College Quarterly of Research and Practice*. 13(2), 129-134.

- National Council of Educational Opportunity Associations (NCEO). (1997). 1997 annual report NCEO, Building a stronger TRIO community for the 21st century.
- Okawa, G. (1998). Dimensions of diversity: Peer tutoring in a multi-cultural setting. Paper presented at the Annual Meeting of the Conference on College Composition and Communication, St. Louis, MO. (ERIC Document Reproduction Service No. ED 295 190).
- Oliver, P. V., Case, K. I., Powell, J. L., & Collins, L. H., (2000). A safer passage: Helping adult children of alcoholics make the transition to college. *The Journal of College Orientation and Transition*, 7(2).
- Pantages, E., & Creedon, C. (1978). Studies of college attrition: 1950-1975. *Review of Educational Research*, 48, 1, 49-101.
- Pascarella, E. & Terenzini, P. (1991). *How college affects students*. San Francisco: Jossey-Bass Publishers.
- Ponce, F. (1988). Minority student retention: A moral and legal imperative. In M. Terrell & D. Wright (Eds.), *From survival to success* (pp. 1-23). National Association of Student Personnel Administrators, Monograph Series.
- Provost, J. (1985). "Type watching" and college attrition. *Journal of Psychological Type*, 9, 16-23.
- Pulliams, P. (1998). *The emerging role of community college counseling*. Philadelphia, PA: Community College of Pennsylvania.
- Ramist, L. (1981). *College student attrition and retention*. New York: College Entrance Examination Board.
- Randomizer.org. Web address: <http://www.randomizer.org/>
- Rendon, L. (1995, March 1). Facilitating retention and transfer for first generation students. Paper presented at New Mexico Institute, Rural College Initiative, Espanola, NM. (ERIC Document Reproduction Service No. Ed 383 369).
- Ritschel, R. (1995, Feb./March). The classroom as community. *Community College Journal*, 65(4), 16-19.

- Roueche, J., Baker, G., & Roueche, S. (1984). *College responses to low-achieving students: A national study*. Orlando, FL: HBJ Media Systems Corp.
- Roueche, J. & Roueche, S. (1993). *Between a rock and a hard place: The at-risk student in the open door college*. Washington, DC: College Press.
- Roueche, J. & Roueche, S. (1994). Responding to the challenge of the at-risk student. *Community College Journal of Research and Practice*, 18(1), 1-11.
- Rudman, J. (1992). An evaluation of several early alert strategies for helping first semester freshmen at the community college and a description of the newly developed early alert software (EARS). Irvine, CA: Irvine Valley College. (ERIC Document Reproduction Service No. ED 349 055).
- Rumberger, R. (1987). High school dropouts: A review of issues and evidence. *Review of educational research*, 57, 101-121.
- Saunders, S., & Ervin, L. (Eds.) (1994). *Meeting the special tutoring needs of students*. In R. B. Winston, Jr., T.K. Miller, S.C. Ender, T.J. Grites, & Associates (Eds.), *Developmental academic advising*. San Francisco: Jossey-Bass.
- Siegel, M. (Ed.). (1968). *The counseling of college students: Function, Practice, and technique*. New York: The Free Press.
- Spann, S., Newman, D., & Matthews, C. (1991). The Myers-Briggs Type Indicator and student development: An analysis of relationships. *Journal of Psychological Type*, 22, 43-47.
- Spatz, C. (2001). *Basic statistics: Tales of distributions*. Belmont, CA: Wadsworth Learning, Inc.
- Steele, C. (1992, April). Race and the schooling of African-Americans. *The Atlantic Monthly*, 68-78.
- Texas Higher Education Coordinating Board. (1995). *Report on academic advising*. (ERIC Document Reproduction Service No. HE029173).

- Tharp, J. (1998, Apr-May). Predicting persistence of urban commuter campus students utilizing student background characteristics from enrollment data. *Community College Journal of Research and Practice*, 22(3), 279-294.
- Tinto, V. (1999). *Rethinking the first year of college*.
<http://soeweb.syr.edu/Faculty/Vtinto/>
- Tinto, V. (1975). *Dropout from higher education: A theoretical synthesis of recent research*. *A Review of Educational Research*. 45, 89-125.
- Tinto, V., Russo, P., & Kadel-Taras. (1996). Learning communities and student involvement: Creating environments of inclusion and success. In J. N. Hankin (Ed.), *Opportunity and access for America's first year students*. Columbia, SC: National Research Center for the Freshman Year Experience and Students in Transition, University of South Carolina. (ERIC Document Reproduction Service No. ED 393 486).
- TRIO Achiever's Website Issue Brief (2003). *Gear up and TRIO: Similar goals, contrasting policies and programs*. Council for Opportunity in Education, Washington, DC. http://www.trioprograms.org/famoustrio_achievers.html
- Trippi, J. & Cheatham, H. (1999). Effects of special counseling programs for black freshman on a predominately white campus. *Journal of College Student Development*, 30(1), 35-40.
- U.S. Department of Education, Office of the Under Secretary (1997, February). *The national study of student support services*. Washington, DC: SMB Economic Research, Inc.
- U.S. Department of Education website. Fiscal Year 2002 Budget Summary and Background Information found online at:
<http://www.ed.gov/about/overview/budget/budget02/summary/finalpr.pdf>.
- U.S. Department of Education website:
<http://www.ed.gov/about/offices/list/ope/trio/triohistory.html>.
- U.S. Department of Education TRIO website:
<http://www.ed.gov/about/offices/list/ope/trio/index.html>.

Upcraft, , M., Gardner, J. and Associates. (1989). *The freshman year experience*.
Jossey-Bass. In Tinto, V. (1999). *Rethinking the first year of college*.
<http://soeweb.syr.edu/Faculty/Vtinto/>.

Vincent, J. (1990). Impact of a college learning assistance center on the achievement and retention of disadvantaged students. (ERIC Document Reproduction Service No. ED 283 438).