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**The Effects of Social Integration Strategies on First-Year Student Retention at a Historically Black Higher Education Institution**

Harold R. Clarke Jr.

THE EFFECTS OF SOCIAL INTEGRATION STRATEGIES ON  
FIRST-YEAR STUDENT RETENTION AT A  
HISTORICALLY BLACK HIGHER EDUCATION INSTITUTION

DISSERTATION

Presented in Partial Fulfillment of the Requirements for  
the Degree of Doctor of Philosophy in  
Leadership and Education in  
the Adrian Dominican School of Education of  
Barry University

By

Harold R. Clarke, Jr., B.A., M.A.

\* \* \* \* \*

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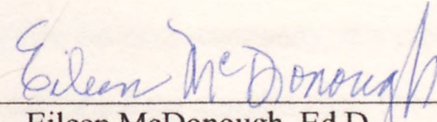
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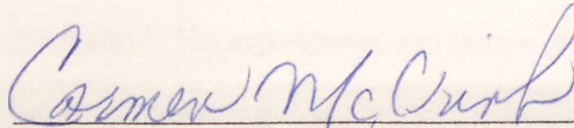
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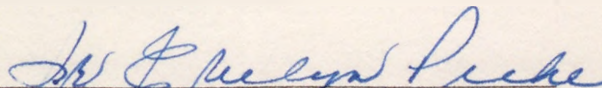
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## ABSTRACT

### THE EFFECTS OF SOCIAL INTEGRATION STRATEGIES ON FIRST-YEAR STUDENT RETENTION AT A HISTORICALLY BLACK HIGHER EDUCATION INSTITUTION

Harold R. Clarke, Jr.

Barry University, 2001

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One-hundred-fifty first-year students enrolled in developmental courses at Florida Memorial College during the Fall term participated in a study to determine the impact of collaborative learning communities and residential setting on students' personal growth, academic performance, and persistence.

Incoming freshman students were given a computerized placement test. Only students that tested into two or more developmental courses were considered for this study. From the sample of eligible students, seventy-seven students were selected and assigned to a collaborative learning community; this experimental group took two or more developmental classes and the standard FMC 101 class together. Another seventy-three students were assigned to a control group and took the same courses but independent of each other. The experimental and control groups were further divided by residential status; ninety-two participants were residential students and fifty-eight participants were off-campus, commuter students. Each group completed the College Outcomes Survey at the end of the term.

The experimental group living on campus was expected to report more personal growth than control group commuter participants. Personal growth ratings

did not support the hypothesized expectancy. First-year students in the experimental group that resided in the residence halls were also expected to perform better academically. However, control group participants earned a higher overall academic GPA than participants in the experimental group. Finally, experimental group participants did not differ significantly from control group participants with respect to retention. Over ninety-six percent of the study group enrolled for the Spring 2001 term.

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## CHAPTER I

### BACKGROUND

#### Introduction

Following World War II, college enrollment increased dramatically and steadily in the United States over the next thirty years. This increase was initially stimulated by the G.I. Bill that provided the funding for large numbers of war veterans to enroll in colleges. The emergence and rapid expansion of the Community College System, in the 1950s and 1960s also contributed to the unprecedented growth in postsecondary education. In response to the Sputnik Crisis, a federal partnership with higher education, in particular, and with education in general, also contributed to the rise in college enrollment. However, it was the Civil Rights Movement of the mid-1960s, and the fifteen-year desegregation effort that followed, which provided an array of educational opportunities to college bound students, most especially, black students (Rudolph, 1990).

#### Access and Quality Theme

The thirty-year period from 1945 to 1975 has been referred to as the “academicrevolution” (Altbach, Berdahl & Gumport, 1999). During this period, access to college was the dominant theme in higher education. As enrollment increased and curriculum expanded, however, the issue of “quality education” emerged. Institutions addressed the quality issue in a number of ways. Some used the composition and esteem of its faculty to attest to the “quality” of education they provided. Others referred to their physical plant and the size of their endowment to substantiate their claims of providing quality education. But by far, the most pervasive strategy used by institutions to support claims of providing quality education was not based upon what they provided for students but was based upon the



caliber of students they attracted and selected to attend their institution. This strategy relied primarily upon standardized test scores such as SAT/ACT, and high school rankings. Using this strategy, larger and more selective institutions became more and more selective. For black students who traditionally do not score well on standardized tests, traditional and predominantly white schools were almost unreachable, access policy notwithstanding. A small percentage of academically prepared black students opted to attend predominantly white institutions, but the vast majority of college bound black students either went to community colleges or to historically black colleges where the criteria for admissions were less stringent.

#### Shift from Access and Quality to Efficiency and Accountability

As more and more students entered and passed through college doors, the challenge to stabilize enrollment growth in order to promote institutional viability became a central issue in the early 1970s. Concern for enrollment stability was further compounded by the reduction in federal funding to higher education, and a shift in funding strategy, from grants to student loans. As a result of this fundamental shift, the focus in higher education was redirected from “access and quality” to “efficiency and accountability” (Altbach, et al., 1999). Institutions were challenged to demonstrate how effectively they were using available resources to achieve their stated mission, and student “completion rate” emerged as an ever-present yardstick by which institutions were measured (Bean, 1981a; Tinto, 1987). Federal and state policymakers, who allocate resources, and students, who have assumed greater responsibility for funding their education, are holding higher institutions increasingly accountable for students’ success.



### Student Dropout Rates and Retention Focus

By the end of the 1970s a major paradigm shift had occurred in higher education; student “dropout rates” and “completion rates” emerged as a pivotal issue in postsecondary education. Throughout the seventies, institutions struggled to retain students and to understand why students stopped out of school (Astin, 1975; Bean, 1986; Tinto, 1975). Thirty years later, student retention remains a central focus for the vast majority of postsecondary institutions (Anderson, Herr, & Nihlen, 1994; Martaugh, Burns, & Schuster, 1999; Noel, Levitz, Saluri, & Associates, 1985; Pascarella & Terenzini, 1998; Tinto, 1990). More particularly, efforts to retain students, especially first-year students, have become a national mandate (Astin, 1997; Rendon, Terenzini, & Gardner, 1999; Tukey, 1997). In spite of a concerted effort by colleges and universities to retain students, the overall 2000 national dropout rate for freshman to sophomore year was 32.7 percent. The average dropout rate is 31.8 percent for four-year public institutions and 28.2 percent for four-year private institutions (ACT, Inc., 2000). These percentages are even more striking when you look at dropout rates for bachelor degree granting four-year private colleges with liberal or open admission policies. For these types of institutions, the average dropout rate for freshman to sophomore year is 36.1 percent and 35.8 percent respectively.

### Efforts to Reduce Attrition and to Improve Student Retention

The initial efforts to reduce student attrition centered around selecting better prepared students as attested to by their high school grade point averages, class ranking, and standardized test scores (Bagayoko & Kelly, 1994; Phillip, 1993; Ryland, Riordan, & Brack, 1994). Besides academic preparation, academic advising also played an important role in a student’s successful transition to and persistence in college (Ender, Winston, & Miller, 1984; Kramer, 1990). Proper placement and

academic advising continue to play a vital role in student retention (King, 1992, 1993). For those students who entered college academically under-prepared to handle college level courses, an extensive developmental education and academic support network have evolved to prepare these students to succeed. As institutions became more aware of and sensitive to the difficulty students experienced adjusting to college life, academically and socially, they began offering extended orientation programs to introduce and integrate students into the college's academic and social environment (Abraham & Wagnon, 1992). In addition to extended orientation programs (Gardner, 1986), some institutions implemented mentoring programs in order to assist students during the difficult freshman transition year (Nordquist, 1993). Following Astin's (1984) pivotal developmental theory and posits on student involvement, institutions began to encourage and provide greater opportunities for students to get involved in campus activities. As part of the student involvement strategy, institutions promoted residential arrangements that facilitated student interaction (Pascarella & Terenzini, 1980b, 1981; Pike, Schroeder, & Berry, 1997). In recent years, according to Gabelnick, MacGregor, Matthews, and Smith (1990), some institutions have adopted a learning community approach in order to enhance student and faculty interaction and to facilitate collaborative learning inside and outside the classroom with the intent of improving student retention. Learning communities have been successfully used for general education groups, freshman interest groups, honors programs, gateway courses, and developmental courses (Matthews, Smith, MacGregor, & Gabelnick, 1996).

## Role of the Historically Black Colleges and Universities: Opportunities and Challenges

With the predominantly white institutions' (PWI) focus on academic preparedness, standardized test scores, and other quality gates, black students' entry into and success at PWIs was not assured (Carter & Wilson, 1996; Castle, 1993a; Davis, 1995). Black postsecondary institutions played and continue to play a unique role in higher education. Black postsecondary institutions not only offered minority students easier access to college; they also offered a less stressful homogeneous environment within which to matriculate. Other attributes that attracted black students to historically black colleges and universities (HBCU) are the institutions' relative low cost, smaller size, and their supportive environment (Astin, 1990; Fleming, 1984; Weber & Flemming, 1992). Even today, black students, in increasing numbers, continue to opt to attend historically black institutions.

### Meeting Academically Underprepared Students' Needs

Selective admission criteria at both predominantly white institutions and historically black colleges and universities have called attention to a common problem confronting all postsecondary institutions. Higher education institutions, both predominantly white and historically black, must come to terms with their role in meeting the needs of academically underprepared students, the student who lacked the skills to be successful in regular college-level courses (Ignash, 1997; Lazarick, 1997; Strommer, 1993). In response, postsecondary institutions have implemented remedial education programs designed to strengthen incoming students' academic skills in English, Reading, and Math (McCabe & Day, 1998). By the mid-1980s, over 90 percent of the nation's postsecondary institutions offered some form of remedial/developmental education to academically deficient students (Wright, 1985).



### Assimilating First-Year Underprepared Students

Postsecondary institutions faced another common challenge; they had to develop and implement an assimilation process that introduced first-year students to the rigors of college life while preparing them to persist in school and to be successful in the classroom (Tinto, 1975). This process looked beyond the issue of academic preparedness and focused more on providing experiences and support that encouraged students to persist in college in order to achieve academic excellence overtime. The adoption of this approach to student retention was not entirely altruistic. Institutions were under increasing pressure to stabilize their enrollment in order to ensure their long-term growth and viability.

#### Statement of the Problem

##### Florida Memorial College's Student Enrollment and Attrition Rate

Florida Memorial College is a historically black, four-year, liberal arts college located in Northwest Miami-Dade County. The college's enrollment is approaching 2000 undergraduate students. The Freshman Class represents one-third of the institution's enrollment. Admissions is open; successful applicants must show proof of graduation from high schools and they are encouraged to present standardized test scores which are used for placement purposes only. Having an open enrollment policy, the college's freshman to sophomore year dropout rate for 1999 was 36 percent; this percentage has been fairly consistent over the past five years since the institution implemented a comprehensive student retention program in the fall of 1995. As a result of the college's campus-wide student retention effort, enrollment has increased, on average, six percent per year for the past five years. During this time, enrollment has increased from 1,357 in the fall of 1994 to over 1,900 in academic year 1999-2000. The college is expecting a record enrollment during

academic year 2000-2001 and is taking definitive steps to enhance its student retention efforts. The freshman class is expected to number between 650 to 700 new and transfer students.

#### First-Year Testing and Placement Results

Efforts to reduce first-year attrition are confounded by the institution's open enrollment policy and by the large number of entering students that test into developmental courses. Entering students complete the Education Testing Service (ETS), Computerized Placement Test (CPT). The CPT consists of five components: Reading, English, Arithmetic, Elementary Algebra, and College-Level Mathematics. Students scoring below the college level threshold are assigned to developmental courses. Table 1 summarizes the readiness of incoming freshmen based upon their performance on the CPT.



Table 1

Percentage of FMC's Freshmen Testing into Developmental Courses

Placement Results	Fall 1996	Fall 1997	Fall 1998	Fall 1999
Developmental Reading	91%	84%	84%	81%
Developmental Math	87%	86%	87%	89%
Developmental English	58%	52%	61%	61%
Three (3) Developmental Courses	64%	47%	56%	60%
At least One Developmental Course	98%	96%	95%	96%
One Developmental Course	24%	19%	13%	12%
No Developmental Courses	2%	4%	5%	4%

Source: Florida Memorial College's Testing Center, July 2000.

On average, fifty-seven percent (57%) of the freshman class test into three developmental courses and ninety-six percent (96%) test into at least one developmental course.

Efforts to Reduce First-Year Student Attrition

Various strategies have been used at Florida Memorial College to reduce first-year student attrition and to improve student success. Among them, academic advising continues to play a key role in the retention of students. Students properly

advised tend to remain in school in greater numbers than students who lack this critical and fundamental service (King, 1992; Kramer, 1990;). First-year student orientation programs have also proven beneficial to students transitioning to college (Abraham & Wagnon, 1992; Gardner, 1986; Pascarella, Terenzini & Wolfe, 1986). At Florida Memorial College, freshmen participate in a week-long orientation program designed to introduce them to campus support centers, services, facilities, and to key personnel. These informational sessions are complemented throughout the week by social activities and other opportunities for student-to-student and for student-to-faculty contact. Developmental education remains a vital component to any institution's retention strategy, most especially at Florida Memorial College. Developmental classes prepare students to succeed and to persist in college (Lazarick, 1997). Over half of the incoming freshmen class at Florida Memorial College are expected to place in three developmental or remedial education courses. Over ninety-five percent of the freshman class will be required to take at least one developmental education class. Developmental education classes are supported by a fully staffed Academic Resource Center and a Skills Lab. Both of these support centers provide tutorial assistance, as needed, and offer time-on-tasks computer assisted self-paced training opportunities to students.

#### First-year Student Attrition Rate Unabated

In spite of these efforts, Florida Memorial College's first-year student dropout rate, at 36%, is still at the national average (35.8%) for a private four-year Bachelors Degree granting institution and remains a major concern. If the college is going to sustain its current growth rate of six percent per year, as mandated by the President, and improve its completion rate, Florida Memorial College's first-year student attrition rate must be reduced even further. To accomplish this, the college must

adopt and embrace a new retention strategy: one that uses positive social experiences to enrich the learning process in and out of the classroom, and one that promotes and encourages student- to-student interactions and social involvement.

### Using Social Integration Strategies to Improve Retention

In recent years, a variety of social integration strategies, such as learning communities, collaborative learning techniques, extracurricular involvement, peer mentoring, and student-faculty contact, have been used with varying degrees of success to improve student persistence at large public institutions (Astin, 1984; Lovelady, 1992; Mayo, Murgula, & Padilla, 1995; Shucker, 1987). Residential setting is another social integration strategy that has shown promise as a mitigating factor in a student's decision to persist in college (Kanoy & Bruhn, 1996; Pascarella and Terenzini, 1980a, 1980b, 1981). The research reported, however, has been conducted primarily at large predominantly white institutions. The findings, however, suggest that resident students' academic and personal development are positively affected by social experiences on campus and within the residential context (Inman & Pascarella, 1997; Pascarella, 1985a, 1985b; Terenzini & Pascarella, 1984; Zeller, 1991). Again, the reported research was conducted primarily at large public white institutions and these results cannot be generalized to small, private liberal arts institutions.

A study by Fernandez, Whitlock, Martin, and VanEarden (1998), conducted at Assumption College, a small private liberal arts Catholic College in the Northeast, investigated first-year student retention in a learning community Pilot Program to determine whether the learning community model has a positive or negative effect on achievement, retention rate, and social adaptation. A group of academically under prepared students at Assumption College were identified to participate in the Pilot



Program. The characteristics of the target group in order of consideration were as follows:

- 1) Low verbal SAT scores (below 407)
- 2) Low math SAT scores (below 418)
- 3) Low total SAT scores (below 825)
- 4) Low high school rank in class (lower quadrant of class)

The sample consisted of 49 students (19 males, 30 females) from the Class of 2000 (the Pilot Program) and 54 students (27 males and 27 females) from the Class of 1999 (Control). The Assumption College First-year Pilot Program was created as an academic support program to increase retention rates and academic expectations of under prepared students. The Pilot Program required students in the program to enroll in three designated three-credit courses: English Composition, Western Civilization, and Introduction to Philosophy. The course size was kept equal to or below 25. Each student in the Pilot Program was assigned a faculty advisor and a faculty mentor. Students were required to meet individually or in small groups with their mentor at least one hour per week. Each mentor had 16-17 students and was required to focus on the students' development of verbal, study and note-taking skills.

The first semester involvement in the Pilot Program was mandatory for the identified students; however, participation in the spring semester was voluntary. Each student took the normal load of five courses each semester. At the end of the spring term, a student opinion survey (Survey A) was sent to 37 Pilot Program students and another modified survey (Survey B) was sent to 33 Control students. With respect to retention, the Control Group had a first-year retention rate of 74 percent compared to the Pilot Program's Cohort retention rate of 76 percent. In comparing academic

achievement, the Control group's average cumulative GPA 2.06 and the Pilot Program's Cohort cumulative GPA was 2.43.

The Learning Community social integration strategy used in Assumption College First-Year Pilot Program for Academically Under prepared Students had a positive effect on participants. The Pilot Program participants had a higher retention rate and higher cumulative GPA than Control Group students. Additionally, Pilot Program students reported that they established more friendships with other students in their courses and spent more out of class time in a combination of social and academic pursuits with friends. The program required that they spend out of class time with faculty, and they viewed faculty in general as having helped them grow both personally and academically. These findings are consistent with that reported by Astin, (1996); Levitz and Noel (1989); and by Pascarella (1980).

#### FMC Learning Community and Residential Setting Retention Study

This study took a closer look at social integration from a learning community and residential living arrangement perspectives in a small private historically black liberal arts college to determine their effect on first-year students' personal growth, academic achievement and retention. The sample population was selected from first-year students enrolled in three courses at Florida Memorial College during the Fall 2000 term. Two of the three courses were developmental education courses in English, Math, and Reading. The third course was FMC 101, a required freshman seminar course that all incoming freshmen must take.

#### Purpose of the Study

The purpose of this study was to investigate the effect of Learning Community and Residential Status on First-Year Students' personal growth, on their academic performance, and on their decision to persist in college.



### Research Questions

This study endeavored to validate the axiom which states that the more connections, social, and supportive contacts, a student establishes and sustains on campus, the more likely he or she will persist in college (Astin, 1984, 1996; Tinto, 1987, 1998). Given this premise, it was reasonable to expect that students who attended several courses together, participated in group learning experiences in and out of the classroom, and completed course requirements in small groups would form sufficient student-to-student contacts to positively impact their classroom performance and enhance their social skills. This study tested this supposition. Specifically, this study sought to determine to what extent do collaborative learning communities and residential status influence first-year students' personal growth, classroom performance, and their subsequent decision to persist in school. Students in the learning community (experimental group) were expected to report greater personal growth than students in a control group. Additionally, students in the experimental group who reside on campus were expected to perform better academically and were more likely to persist than first-year commuter students in the control group.

Specific Hypotheses examined are:

1. Students in the experimental group will report greater personal growth than control group students.
2. Resident students will report greater personal growth than commuter students.
3. Students in the experimental group will achieve a higher GPA during the fall term than students in the control group.

4. Resident students will achieve a higher GPA during the fall term than commuter students.
5. Students in the experimental group will be more likely to persist than students in the control group.
6. Resident students will be more likely to persist than commuter students.
7. Students in the experimental group that reside on campus will report greater personal growth than other students.
8. Students in the experimental group that reside on campus will achieve a higher GPA than other students.
9. Students in the experimental group that reside on campus will be more likely to persist than other students.

#### Definition of Terms

Social integration is a theoretical concept that, in recent years, has been broadly defined as the level, frequency, and quality of interpersonal interaction one has with peers, faculty, and staff in a variety of settings that promotes self-assurance and positive regards. The literature (Astin, 1984; Lovelady, 1992; Shucker, 1987; Thomas, 1998; Tinto, 1997a, 1997b; Whitt, Edison, Pascarella, Nora, & Terenzini, 1999) offers an array of operationalized definitions which include social involvement, student-faculty contact, participation in extra-curricular activities, student mentoring relationships, student network, peer relations, and support groups.

#### Learning Community: First Independent Variable

In this study, social integration was operationalized by a participant's assignment to a learning community, the first of two independent variables to be studied. Study participants were assigned to either a Learning Community

(experimental group) or to a control group. Students in the experimental group were assigned to take three designated classes together; meet with their advisor/instructor weekly, and were required to complete both in-class and out-class small group collaborative projects. Experimental group members were also required to attend a minimum number of extra-curricular activities outside of the class context. In the control group, participants were randomly assigned to the same number of prescribed courses, but participants were expected to complete course assignments independently and individually.

#### Residential Status: Second Independent Variable

A second facet of social integration that investigated was the effect of participants' residential status. Students who live in resident halls will have more opportunities to interact with students from their classes and with other students they meet in the residence hall. Therefore, the residence hall represented a major student-to-student interaction zone where peer relationships can be fostered and where classroom requirements can be pursued in a relaxed and more informal setting. As such, the residence hall setting was an integral part of the social integration process. Residential Status was the second independent variable to be investigated.

The term residential status referred to one of two dichotomous groups. Participants that live in on-campus housing were referred to as resident students. Non-resident, off-campus participants were referred to as commuter students.

#### Dependent Variables

Student Personal Growth. The first dependent variable was the student personal growth as reported on the College Outcomes Survey that was completed at the end of the fall term. In the College Outcomes Survey, Section II D, participants indicated the extent of their personal growth on 36-items since entering college and,



also, indicated to what extent did the college contribute to their growth on each of the 36-items.

Academic Achievement. The second dependent variable was academic achievement; this variable was assessed by participants' GPA for classes taken during the fall term.

Persistence. The final dependent variable was persistence. This variable was assessed by students' registration for and actual enrollment for the Spring 2001 term.

In summary, social integration was operationalized by the collaborative learning communities established that provided collective learning opportunities, and by the residential status of participants. The effect these independent variables had on personal growth, student academic achievement (GPA) and persistence decision was the central focus of this study.

#### Scope and Delimitations of the Study

The study was conducted at Florida Memorial College, a small historically black liberal arts college located in South Florida. The overall enrollment at the college is approximately 2000. Participants were selected from the incoming Fall Freshmen class that exceeded 650 new first-year students. However, participants were further defined by their performance on the College Placement Test (CPT) that was administered to all new students who do not provide a satisfactory ACT/SAT score with their admissions application. Only students whose CPT test results placed them in two developmental courses (English, Reading, or Math) were considered to participate in the study.

Even though the focus of this study was on social integration, it was virtually impossible to separate this construct entirely from academic integration. Indeed, an academic setting and various instructional methodologies were used to promote the

social interactions that were expected to enrich the learning process and to build the social contacts whose effects were later examined. The two were inseparably connected. However, one can determine that both influences are present and, depending on the instrument used and analyses conducted, it is possible to determine a weighted factor for each; this discriminant analysis requires advanced statistical skills.

Because of this difficulty, researchers have been reluctant to investigate social integration; yet, the construct has been part of every grand theory of student retention since the mid-1970s (Bean, 1981a, 1981b, 1981c; Tinto, 1975). Only in the past fifteen years have researchers ventured to isolate facets of the construct and explore their effects on student retention. This study follows in this vein; it attempts to isolate two aspects of social integration and to determine their impact on first-year student retention at a historically black college.

#### Organization of the Remainder of the Study

The literature on student retention will be reviewed. This review will examine initial attempts to understand student attrition by focusing on pre-college variables and academic preparedness. Grand theories of student retention that encompassed multiple variables and postulated new constructs will be chronicled, and various mini-theories that followed will be highlighted. The role of advising, orientation, financial aid, developmental education, first-year experience, and residency in student retention will also be discussed. An extensive review of academic and social integration efforts will be followed by a discussion on how higher education institutions have attempted to address minority students' concerns and attrition. The chapter concludes with a detailed discussion on retention concerns and retention strategies employed by historically black colleges and universities.



Chapter Three delineates the methods used in this study. Specifically, the sample selection procedures and characteristics will be presented. Instruments used to gather data will be described and their effectiveness will be substantiated. Finally, data analysis techniques to be used will be outlined. The results of the study will be reported in Chapter Four; also, in this chapter, each research question will be examined and findings reported. The interpretation of the findings and their implications will be discussed in Chapter Five along with conclusions and future applications.

## CHAPTER II

### REVIEW OF LITERATURE

#### Introduction

Since the mid-1970s, colleges and universities have been challenged by a rise in student attrition rates. A rising student attrition rate coupled with a shrinking college bound population, rising institutional cost, and declining federal and state aid have caused college administrators to examine the student retention issue. Administrators realize that, in order to ensure institutional viability, student retention must not only be stabilized, it must be improved significantly if institutions of higher education are going to meet the quality education demands of its student consumer. Colleges can ill-afford to continue to lose over 30 percent of their freshmen class annually. Yet, in spite of years of research on dropout prevention (Astin, 1975, 1987, 1998; Bourdeau & Kromrey, 1994; Gass, 1990; Harris, 1990; Kluepfel, 1994; Tinto, 1975, 1982), student retention remains a nemesis for most institutions of higher education.

#### Freshman to Sophomore Drop Out Rates and their Impact

According to American College Testing, Inc., the 2000 National Dropout Rate from the freshman to sophomore year at a four-year public and four-year private BA/BS degree granting college is 31.8 percent and 28.2 percent respectively. At tuition-driven institutions, losing 30 percent or more of your freshmen class represents a challenging fiscal dilemma. Reduced enrollment and/or un-programmed student attrition dictate that operational budgets be adjusted, apportioned resources would have to be reallocated, and program expansion plans will either be deferred or abandoned. One way to address student attrition is to accept it as an operational reality and to increase efforts to recruit replacements in the new freshman cohort year.

Another, more cost effective and responsible, approach is to determine why students are prematurely departing college and to respond programmatically by implementing early intervention programs in order to retain students already enrolled. Many colleges (Kinnick & Ricks, 1993; Phillip, 1993; Tinto, 1987) have adopted the latter approach out of fiscal necessity.

#### Research Efforts Over The Past Twenty-five Years

Using both qualitative (Kinnick & Ricks, 1993; Van-Allan, 1988) and quantitative (Bean, 1980, 1982; Cabrera, Nora, & Castaneda, 1993; Congos & Schoeps, 1997; Dey & Astin, 1993; Grossett, 1989; Pascarella & Terenzini, 1980a; Terenzini & Pascarella, 1991; Tinto, 1987; Tukey, 1997) methods, researchers over the past twenty-five years have endeavored to chronicle and to elucidate the dropout issues that plague colleges and universities. Stimulated by these researchers' findings, others have become active in the study of student attrition and retention. Through the years, research efforts have moved from descriptive models, which delineate characteristics of individuals likely to dropout, to a more comprehensive predictive model with accompanying intervention strategies (Bagayoko & Kelly, 1994). Bagayoko and Kelly (1994) identified and discussed five student retention models that have emerged from the literature and concluded their review by proposing a sixth model, that will be discussed later, called the comprehensive retention model (CRM). Some of the salient student retention variables or factors that have been determined, over the past twenty-five years, to impact student retention and a student's decision to persist in college will be reviewed. The literature is replete with findings on student retention rates based upon demographic variables such as gender, age, and race (Astin, 1975; Mutter, 1992; Ryland et al., 1994; Smedley, Myers, & Harrell, 1993). Rather than explore these variables, this review will focus on transcending variables



or factors such as academic preparedness, academic advising, orientation, financial aid, career certainty, stress, developmental education, residential programs, minority status and institutional fit, and academic and social integration strategies.

### Student Retention Variables/Factors

#### Academic Preparedness

When looking at student retention, the first and most obvious strategy most institutions considered was to refine their recruitment effort by attracting and enrolling quality students. Quality is usually defined in terms of high school GPA, class ranking, and SAT/ACT scores. A number of researchers (Bagayoko & Kelly, 1994; Phillip, 1993; Ryland et al., 1994) have looked at the relationship between high school GPA and SAT/ACT scores and student persistence; they confirmed earlier research findings that these key variables relate directly to students' success in their initial year of postsecondary studies. Students with above average GPAs and above average SAT or ACT scores were less likely to dropout of college. Whereas, those students with below average scores were deemed less prepared academically and more likely to stop out or dropout of college because they could not meet the rigorous demands of a college curriculum.

From an academic preparedness perspective, the retention issue is relatively simple; recruit only those students who are academically prepared for college. Unfortunately, the quality pool is shrinking and colleges are compelled to accept students who may not meet the quality gates traditionally used or suggested by above average GPA, class ranking, and national test scores (Astin, 1990; McCabe & Day, 1998; and Spann & Calderwood, 1998).



### Academic Advising

Once a student is admitted, the college must provide programs and services to ensure enrolled students are successful and that they go on to graduate (Phillip, 1993). The first of these essential programs is an academic advising program for incoming students. Effective academic advising is critical to the success of incoming students, most especially for developmental students whose high school performance suggest that they are underprepared for college level courses (Kern & Engels, 1996). Kern and Engels (1996) indicate that effective advising can affect a student's decision to persist. The relationship between black student level of academic success and academic advisement was examined by Watson, Dumas, Mason, Haynes, and Dumas in 1994. These researchers found that advising procedures in colleges and universities can have profound effects on the subsequent academic performance levels of students.

The focus of a definitive academic advising program is not on how well a student is academically prepared, but rather, on how prepared is a student to persist in order to achieve academically. Researchers (Boylan, 1999; Ender et al., 1984; King, 1993; Kramer, 1990) have proven that students who are provided with sound and timely academic advising succeed. To implement an effective academic advising program, colleges often concentrate academic advising, most especially for freshman students, in a special center headed by a director. This program director, according to Ender et al. (1984), may report to a department chairperson or to a vice president (academic affairs or student affairs). A successful program integrates and acknowledges the systemic relationships between assessment, advising, and placement (Bashford, 1998; Boylan, 1999; King, 1992;). For more intensive management of students and

advising service, some colleges isolate developmental academic advising from regular academic advising (Kern & Engel, 1996; Meadows, 1998).

### Freshman Student Orientation Programs

Academic preparedness and academic advising are two key retention variables; however, a student can be prepared academically, can receive definitive advisement, and still depart college prematurely. The salient issue is adjustment; some students find it difficult to adjust and to assimilate into the college milieu. In the mid-1980s, student attrition and retention research broaden its focus to examine the effects of new and strange environments on students' departure decisions (Pascarella, Terenzini, & Wolfe, 1986). Researchers began to focus on the assimilation process and its impact on student retention (Abraham & Wagnon, 1992; Gardner, 1986; Toder & Hartsough, 1993). Based on this research, institutions acknowledged the need for continuity and support for incoming freshman students, and began to refine and expand student orientation programs.

Most colleges and universities have formalized how new students are introduced to and assimilated in the college environment. During orientation programs, students are introduced to institutional traditions and values, support centers and services, and meet formally and informally with students, faculty, staff, and key administrators. Students are encouraged to take advantage of the many opportunities during orientation, and supporting social events, to meet and interact with others. Some colleges offer Summer Orientation programs where incoming students arrive on-campus for a period over the summer prior to classes beginning. Other schools offer week-long orientation programs; and still others have expanded the orientation efforts throughout an entire semester (Gardner, 1986). The length of the program is not as important as the quality of the program. Research has shown (Krotseng, 1992;

Pascarella et al., 1986; Stupka, 1986) that students who are guided through the initial transition to college life are more likely to persist in school than those who are left to fend for themselves. Maxwell (1999) has outlined a comprehensive orientation program designed to get students connected with peers and on campus support centers. Peer group bonding is an important objective of many orientation programs; indeed, some colleges have used peer group strategies to facilitate new student assimilation and adjustment. According to Astin (1992), peer group bonding was especially effective in helping students get involved in campus activities and in developing a sense of belonging.

### Student Involvement

Following the lead of Astin's (1977, 1993) work, researchers have also concentrated on developing methods to assist students in becoming involved with their new institutions. According to Upcraft (1989), Astin's involvement theory posits the following (pp135-136):

- 1) "Involvement refers to the investment of physical and psychological energy in various "objects." The objects may be highly generalized (the student experience) or highly specific (preparing for a chemistry examination).
- 2) Regardless of its object, involvement occurs along a continuum. Different students manifest different degrees of involvement in a given object, and the same student manifests different degrees of involvement in different objects at different times.
- 3) Involvement has both quantitative and qualitative features. The extent of a student's involvement in, say, academic work can be measured quantitatively (how many hours the student spends studying) and



qualitatively (does the student reviews and comprehend reading assignments, or does the student simply stare at the textbook and daydream?).

- 4) The amount of student learning and personal development associated with any educational program is directly proportional to the quality and quantity of student involvement in that program.
- 5) The effectiveness of any educational policy or practice is directly related to the capacity of that policy or practice to increase student involvement.” Getting students involved and connected with the social and intellectual communities of college life is a major objective of orientation programs.

#### Addressing Students’ Stress and Assessing Dropout Proneness

Orientation programs relieve some of the stress that is associated with being introduced to a new environment, a new regimen, and to new people, which new students experience. If this stress is not addressed through stress management support, counseling, mentoring, or student activity programming, it could have a deleterious effect on incoming students (Krosteng, 1992; Nordquist, 1993). Identifying stressors and students’ receptivity to accept assistance to address matters of concern is a major objective of the College Student Inventory (CSI) developed by Stratil (1988). The CSI, with its 194 items, contains 19 scales organized into five categories: (a) academic motivation, (b) social motivation, (c) general coping skills, (d) receptivity to support services, and (e) initial impression. The CSI is most effective when administered to incoming freshmen during the first couple weeks of the semester. The inventory scales provide helpful information pertaining to students’ concerns that can be used to facilitate the student/advisor-mentor interactions or to direct the student to appropriate support services. Most importantly, the inventory



helps to identify student persisters and dropouts and can be used as an early intervention tool (Stratil, 1998). In a recent study, Herr and Low (2000) reported the CSI results from a nation-wide administration that included eight two-year institutions (n=1,257 students), and sixteen four-year institutions (n=4,982). The study assessed Fall to Fall persistence data and Cumulative GPA. The CSI factor structure used in the study is shown in Table 2.

Table 2

The CSI Factor Structure

• Study habits	• Family emotional support
• Intellectual interests	• Openness
• Academic confidence	• Career planning
• Desire to finish college	• Sense of financial security
• Attitudes toward educators	• Receptivity to : <ul style="list-style-type: none"> <li>- Academic assistance</li> <li>- Personal counseling</li> <li>- Social enrichment</li> <li>- Career counseling</li> </ul>
• Self reliance	• Leadership
• Sociability	• Ease of transition
• Initial impression	

Source: Herr & Low (2000)

The average Alpha Coefficient for all scales across four-year institutions was .7977. For 2-yr institutions, the average Alpha Coefficient for all scales was .8051 (Herr & Low, 2000). Herr and Low (2000) validated many of Stratil's posits and confirmed that the CSI is effective at identifying persisters and dropouts. The inventory correctly categorized 63.7% of the original grouped cases into the correct response classification (see Table 3).

Table 3

Discriminant Analysis: Classification Results

Persistence	Predicted Group Membership		
	0=NO	1=Yes	Original
0=No	584	400	984
1=Yes	1610	2943	4553
0=No	<b>59.35%</b>	40.65%	100.00%
1=Yes	35.36%	<b>64.64%</b>	100.00%
63.7% of original grouped cases correctly classified			
Odds Ratio: 2.67			

Source: Herr & Low (2000).

Herr and Low (2000) described the characteristics of persisters and dropouts using the CSI scales further illustrating the CSI usefulness to an early intervention retention program.

### Financial Aid -- An Equalizer and a Stressor

A student's transition to college is stressful. Most students are concerned about financial aid and financial support. It has been determined that financial aid is another key variable that impacts a student's decision to persist in college (Murdock, 1987; Stampen & Cabrera, 1986; Vorhees, 1985). It stands to reason that if students are concerned with making payments or are required to work part-time to meet college expenses, this could have a deleterious effect on their academic performance. To examine the impact of this concern on student departure decisions, Cabrera, Nora, and Castaneda (1992) completed an exhaustive empirical study of the role of finances in the persistence process. They determined that financial aid, and students' attitude about it, is important not only because it equalizes opportunities between affluent and low-income students, but also because it facilitates the integration of diverse students, based on income, into the academic and social components of the institution. Financial aid relieves pressures and allows students to focus on their studies, according to Cabrera, et al., (1992); Murdock, (1987); Perna, (1998); it also influences a student's commitment to stay in college.

Steinberg and Dornbusch (1991) presented evidence that showed a negative correlation between part-time work and academic performance as measured by GPA, homework completed, and class attendance. According to these researchers, the more hours a student worked, the lower his or her academic performance. Other researchers (Cabrera, Stampen, & Hansen, 1990; Nora, 1990; Nora & Horvath, 1989) have further documented the relationship between financial aid and student persistence.

### Career Certainty -- Career Goal Impact on Persistence

Having a career goal keeps students focused on academic requirements and networking opportunities offered through career fairs, internships, and part-time employment. Career certainty (that is, students with clear career goals) has been shown to be positively related to persistence (Mutter, 1992). Mutter reported that differences were demonstrated between the persistence of students who are more sure of their career choices than those who are less sure; she concluded that certain students are more likely to persist.

### Residential Status and Persistence

#### Understanding the Benefits of Living On-Campus

A growing body of evidence suggests that students residing in on-campus housing tend to perform better academically and are more socially connected than non-resident off-campus commuter students (Pascarella, 1985a; Pike et al., 1997; Terenzini & Pascarella, 1984). Pascarella and Terenzini (1982) investigated this subject and developed a contextual analysis method to assess the specific dimensions underlying residence group influences on freshman academic performance. In 1985a, Pascarella used this methodology to study the influence of on-campus living versus commuting to college on intellectual and interpersonal self-concept; he reported that on-campus living influences were indirect and that they were mediated through interactions with faculty and peers. Terenzini and Pascarella (1984) looked specifically at the relationship between freshman attrition and the residential context; they determined that the nature of the group with which a freshman college student lives may influence that student's decision to continue enrollment into the sophomore year.



### Residential Context and Its Impacts

The nature of the residential context influence on residents has been examined from three perspectives. The first perspective looks at resident hall living as an extension of the orientation/transition process and suggests that student-to-student interactions mitigate isolation and facilitate belongingness (Zeller, 1991). The second perspective views resident hall living as a bridge that allows students and faculty more opportunities to interact thereby extending the educational benefits through informal contacts beyond the classroom setting. Pascarella and Terenzini (1980a, 1980b, 1981), and Pascarella, Duby, Terenzini, and Iversion (1983) have explored student-faculty and student-peer relationships with residence arrangement and found that residency positively influence educational and personal growth and academic persistence. The third line of investigation seeks to determine what influence residence living may have on student's cognitive or intellectual abilities.

Pascarella et al. (1983) reported that first-year resident students had significantly larger first-year gains in critical thinking than did commuters. Similarly, Kanoy and Bruhn (1996) found that college freshman housed in a living and learning residence hall had higher GPA in all four semesters of their first two years of college compared to a matched control group. Additionally, Inman and Pascarella (1997) determined that college residence living facilitated the development of critical thinking skills in college freshmen; they conclude that students' out-of-classroom experiences and interactions can influence cognitive development during college. The evidence seems to support that residence hall living can enhance the educational impact and experiences of resident students and can influence first-year students to persistence (Pike et al., 1997).

## Developmental Education: Meeting Underprepared Students' Needs

### The Rise and Expansion of Developmental Education Programs

Developmental and Remedial Education Programs were established and expanded at many colleges and universities during the 1960s and 70s in response to the nationwide increase in postsecondary student enrollment and in an effort to address the needs of so many students who were academically underprepared for college level work. By the mid-1980s, over 90 percent of the nation's postsecondary institutions offered some form of remedial education to academically deficient students (Wright, 1985). Without these programs, millions of students, both white and black, would not have been able to obtain a college education.

### Developmental Education and Retention

According to McCabe and Day (1998), developmental education will exist way into the 21<sup>st</sup> Century; these programs will remain a vital component of the academic integration and transition process in postsecondary education. With this understanding, the question becomes, how effective are these programs and what impact do they have on student retention. Parrish and Hiatt (1989) conducted an assessment of developmental courses and programs. They determined that developmental courses are effective in addressing the basic mathematics, reading/study skills, and composition skill deficiencies of many entering college students. With respect to the second question, what is the impact on retention, the literature is replete with successful program reviews (Culross, 1996; Fielstein & Bush, 1998; Gubbe, 1999; McCabe & Day, 1998; Strommer, 1993;) that attest to the contributions developmental education programs have made to students' success. A case in point, Commander, Stratton, Callahan, and Smith (1996) reported on the academic support network established at Georgia State University that proved

successful at improving developmental students' persistence. Another case, Cohen (1999) examined first-year underprepared college students' experiences and indicated how the developmental education program provided the environment for students to experience success and to gain self-confidence. Developmental Education Programs are effective and essential, but there is still lots of room for improvements (Koehler & Burke, 1996).

#### Call for Improvements in Developmental Education Programs

As previously stated, many students benefit from taking developmental courses and go on to join the mainstream of college life and graduate. However, there are others who stop-out or dropout for a variety of reasons. In order to improve existing programs, a more concerted effort must be taken to determine why students leave developmental education programs prematurely. Miller and Gerlach (1997) conducted such a study, and they determined that a more proactive approach that includes performance tracking, telephone intervention, mentoring, and skills enhancement sessions, was required to breakthrough some students resistance and to encourage them to persist. Boylan (1999) even suggested that traditional remedial class delivery approaches be examined and that alternative methods such as freshman seminar, supplemental instructions, critical thinking instructions, and paired courses be considered. Fernandez, et al (1998) conducted a study at Assumption College, a predominantly white, Catholic, liberal arts institution located in Massachusetts, that placed 49 academically underprepared freshmen together in three required courses as part of a pilot study. Participants attended all three classes together and met weekly with their assigned faculty member. A control group took the same three classes but independently. The results of the pilot study indicated that students in the pilot group who took all three classes together had lower attrition and higher GPA after the first



year than did students in the control group. This study illustrates Boylan's (1999) central point that developmental education developers and practitioners need to explore alternatives to remediation; the benefits may far exceed the cost and effort involved.

#### Defining and Clarifying Postsecondary Institutions' Role in Developmental Education

One of the reasons developmental education programs are not targeted for improvement is because there remains much discussion and controversy regarding the role of secondary education versus the role of postsecondary education and; the role of community colleges versus the role of four-year colleges (Lazarick, 1997). Defining the roles would contribute to the resolution of other issues associated with cost, curriculum, policies and effectiveness assessment according to Ignash (1997), Carranza, & William (1997).

#### Combining Retention Variables/Factors: Conceptual Models

##### Combining Retention Variables/Factors

Examining isolated key variables that influence student retention is convenient and simple. But student retention is far from simple. To really understand student retention, variables must be combined and viewed in a dynamic process. At any given decision point, a student may have anywhere from three to fifteen factors to consider before deciding whether to remain in school or to dropout. To account for this complex decision process, researchers over the past 25 years, have developed various models to describe a student's behavior/choices, to predict that student's most likely behavior, or to explain the choice made (Bean, 1981a; Cabrera et al., 1993; Grossett, 1989; Tinto, 1975).



### Six Basic Models Used to Explain Student Retention Behavior

Bean (1982), Bagayoko and Kelly, (1994) and Kember, (1989) reviewed the various retention models over the past and concluded that they can be grouped into basic six categories:

1. Descriptive Models -- those that focus on listing characteristics of persisters and non-persisters.
2. Pre-matriculation Models -- those that place emphasis on academic preparedness and other characteristics of incoming students.
3. Congruency Models -- those that focus on the fit between students' needs, attitudes, goals, and expectations on one hand and the institutional environment on the other.
4. Behavioral Models -- those that emphasize the interaction between attitudes, intent, and behavior; the influence of intent on behavior is a central construct of this model.
5. Longitudinal-process Models -- those that combine multiple factors and derived constructs in a dynamic interactive process over time. The most widely used retention models today are the longitudinal-process models represented by Tinto's (1975) Student Integration Model (SIM), and by Bean's (1982) Student Attrition Model (SA
6. Comprehensive Retention Models -- is a variant of the longitudinal-process model proposed by Bagayoko and Kelly (1994) which adds time on task (TT) as an explicit independent variable to the model.

Models in each category claim a degree of success at predicting persistence behavior. However, as alluded to above, clearly the most effective models with

regards to generating research and in explaining departure variances are Tinto's Student Integration Model and Bean's Student Attrition Model.

### Student Integration Model (SIM) and Student Attrition Model (SAM) -- Major

#### Findings

Both Vincent Tinto (1975) and John Bean (1980, 1981a, 1981b, 1981c) developed a longitudinal-process model of student retention that combines multiple factors such as GPA, SAT/ACT Scores, financial attitude, academic integration, social integration, family support, institutional commitment, and goal commitment. Both models regard persistence as the result of a complex set of interactions over time. The two models also argue that pre-college characteristics affect how well the student would subsequently adjust to the institution (Hossler, 1984). Further, the two models argued that persistence is affected by the successful match between the student and the institution.

Specifically, Tinto's model attributes attrition to the lack of congruency between students and institutions. Tinto (1987) maintains that the match between the student's motivation and academic ability and the institution's academic and social characteristics help shape two underlying commitments: commitment to an educational goal and commitment to remain with the institution. The higher the goal of college completion and/or level of institutional commitment, the greater is the probability of persisting in college. Bean's alternative model (Bean, 1980, 1982) presumes that behavioral intentions are shaped by a process whereby beliefs shape attitudes, and attitudes, in turn, influence behavioral intent.

Tinto's model has been widely and successfully applied to all types of higher learning institutions to include Community Colleges (Grosset, 1989). Bean's Model, although widely accepted, has not generated much interest in recent years.

### Converging and Synthesizing the SIM/SAM Models

Recognizing that there was significant overlap between Tinto's and Bean's theoretical frameworks, Cabrera, Casteneda, Nora, and Hengstler (1992) recommended a synthesis of the two models in order to better understand student retention in college. In 1992, Cabrera and his team completed a factorial analysis of the two models to determine areas of commonality and merged these areas into single constructs. Areas of uniqueness were also examined and tested for their impact on student departure decisions. From these analyses, nine key retention factors were discerned. These nine key retention factors were tested in a structural model and accounted for 47 percent of the total variance of departure behavior (Cabrera, et al., 1993). Statistical relationships between factors were also reported and individual factor loading (or weight) on students' departure decision were determined.

The nine factors and variables included in the longitudinal-process model recommended by Cabrera, et al., (1992) are listed below:

1. Finance Attitude

2. Encouragement from Friends and Family

- Family approval of institution of choice
- Family encouragement to continue enrollment at the institution
- Friend's encouragement to continue enrollment at the institution

3. Academic Integration

- Anticipation of academic performance
- Satisfaction with academic experience
- Satisfaction with course curriculum

4. Academic Performance (GPA)

5. Social Integration



- Developed closed personal relationships
  - Ease of meeting and making friends
6. Institutional Commitment
- Confidence on institutional choice
  - Instructional Fit and Quality
7. Goal Commitment
- Importance of college degree
  - Importance of completing program of study
8. Intent to Persist
- Likely to re-enroll
9. Persistence
- Re-enrollment at the institution

Cabrera et al., (1992) structural model depicting the nine factors is shown in Figure 1.

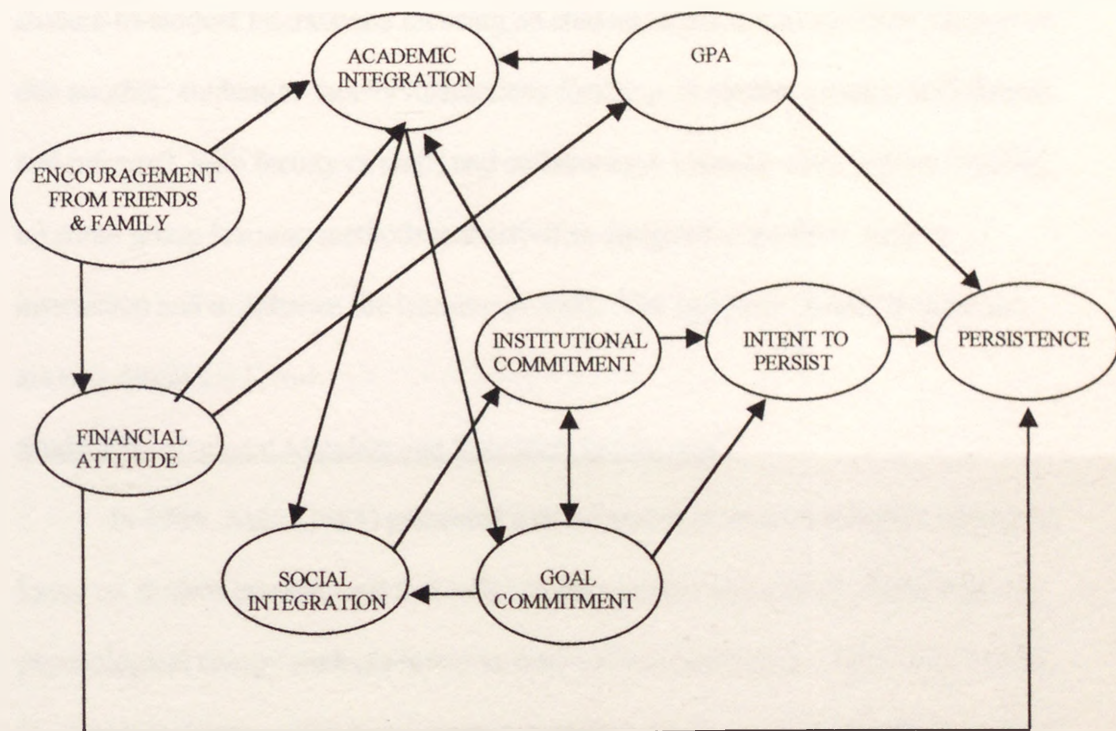


Figure 1. Structural Model

## Social Integration

### Social Integration -- An Emerging Construct

Both Tinto and Bean recognized the importance of friendships and of the support of peers in the college setting; they also focus on individuals' ability to meet and to make close friends (Bean, 1982; Tinto, 1987). These two attributes are prominent in Tinto's and Bean's model and were validated and retained in Cabrera, et al., (1992) structural model in the single construct referred to as social integration. Even though social integration, as a construct has been recognized over the years, only in the last fifteen years has any effort been made to understand the construct in its varied manifestations in a college environment. A review of the literature suggests that social integration has been studied rather extensively and that the research can be divided into four broad areas: Student involvement focusing on getting students connected in the campus community through activities, programs, and relevant issues; student-to-student interactions focusing on student relationships and their support of one another; student-to-faculty interactions focusing on student contact, both formal and informal, with faculty or staff; and collaborative learning communities focusing on small group learning methods and activities designed to promote student interaction and to enhance the learning process. The literature related to these four areas is discussed below.

### Student Involvement Mandate and Retention Implications

In 1984, Astin (1984) presented a developmental theory for higher education based on student involvement that refers to the quantity and quality of physical and psychological energy students invest in their college experience. Astin followed up his theoretical proposition by advocating that high-quality institutions are those that maximize the intellectual and personal development of its students (Astin, 1985). For

Astin, student involvement is seen as the cornerstone of academic excellence. Getting students involved is not restricted to academic involvement. Rather, involvement is all-encompassing and refers to getting students to participate and experience the varied opportunities to meet others and to develop one-self through co-curricular and extra-curricular activities. Shucker (1987) examined the relationship between student involvement in extracurricular activities and the resulting impact on GPA and retention; he found that participation had a negligible impact on GPA and a positive influence on retention. Students involved were more likely to persist than those who remained detached and isolated. Curtis (1997) replicated these findings at three private Christian colleges; she examined the relationship between involvement and retention and found that involved freshmen students were more likely to persist.

#### Student-to-Student Relationships and Retention

Involved students are active students and active students are interacting with other students. Through these student-to-student interactions, relationships are formed. In 1977, Terenzini and Pascarella examined the patterns of students' relationships and developed a conceptual model that was used to determine the effect these patterns had on students' assimilation and social integration. Recognizing that a student's background may effect their integration and subsequent decision to persist, Terenzini and Pascarella (1978) examined the role of students' background and levels of social and academic integration in college attrition. They found that pre-college traits were not significantly related to college attrition but that the interactions between gender, major, and race explained a large proportion of the variance, followed by academic integration and social integration, in that order.

These findings suggest that social integration plays a part in students' decision to persist in college. Capitalizing on these findings, Weidman (1989) examined the



undergraduate socialization processes and developed a model that helped to determine the impact of various social processes, such as the influences of faculty and peers, on students. The importance of peer groups and their influence on student persistence was later examined by Astin (1992); he determined that peer groups are essential in the social integration process and should be an integral part of a student's assimilation into the campus. Durante (1998) confirmed Astin's findings but cautioned that social peer groups could have a negative impact on persistence. Thomas (1998) clarified this report by reiterating the value of peer groups and liken them to "social network"; he went on to explain that students with "broader" well-connected networks were more likely to persist; whereas, students with a higher proportion of ties falling within their social peer group were less likely to persist.

Halstead (1998) studied the effects of student support groups on academic success; he found that support groups had a positive effect on academic success. Students in support groups enjoyed frequent peer interactions and peer interactions have a strong positive effect on students' cognitive outcomes according to Whitt, et al., (1999). These findings are consistent with Terenzini and Wright's (1987) report which indicated that student-to-student contact had a positive effect on students' personal growth and development. Volkwein (1991) supported similar findings and issued the following summarizing conclusion; he indicated that with respect to academic and social integration and student growth, educational outcomes are most heavily influenced by the classroom experience, by student-peer linkage, and involvement, and by the student's own interest and intellectual investment in learning.

In summary, student-to-student interactions, whether in peer groups or support groups, in the classroom, in interest groups, or through social networks play an important role in students' academic and social integration (Hyman, 1995; Morrisey,

1991; Tinto, 1994a, 1994b). According to Astin (1992), student-to-student contacts become the “ties that bind” students to the institution. The broader the ties, the more likely students are to persist.

#### Student-to-Faculty Contact and Retention

Terenzini and Pascarella (1980) were among the first to investigate the importance of student-faculty relationships and their impact on academic performance and persistence. These researchers found that the frequency of student/faculty contact was positively related to students' academic, intellectual, and personal growth (Pascarella & Terenzini, 1978, 1991). They went on to report that the quality of contact was related only to personal and intellectual development. Pascarella, et al., (1983) reported similar findings, as did, Volkwein, King, and Terenzini (1986) among transfer students. Bean and Kuh (1984) indicated that faculty informal contact was most influenced by advisor contact and by students talking in class. With respect to non-classroom contact with faculty, Theophilides and Terenzini (1981) indicated that frequency of contact mattered but that the most significant impact was on students' perception of instructors.

Kennedy et al (1995) reported that faculty contact may play a significant role in students' attitudes but may not affect retention. This finding is inconsistent with Susan Buckley's (1991) report that indicated that quality (not frequency) of student-faculty interactions affected retention. Lovelady's (1992) conclusions support Buckley. In his investigation of student-faculty interactions and their impact on retention, Lovelady found that quality contact had a positive influence on persistence.

#### Learning Communities and Retention

Social integration also takes place in the classroom. If structured properly, classrooms can become learning communities. Gabelnick, MacGregor, Matthews,

and Smith (1990) have determined that learning communities have a positive impact on retention and self-assessment. These researchers reported that for students in learning communities nationwide, beginning to end-of-quarter retention rate average ten to twenty percentage points higher than typical institutional averages. Gabelnick, et al. (1990) reported that students valued several aspects of learning communities; among the list, these values were prominent: (a) sense of involvement, (b) friendships and a sense of belonging, (c) learning collaboratively, (d) appreciation of other perspectives, and (e) the building of intellectual connections. Tinto (1994a, 1994b, 1997a, 1997b, 1998) has reported extensively on the value and benefits of organizing colleges, and classrooms into learning communities. According to Tinto, learning communities change the way students and faculty interacts within and beyond the classroom and these changes enhance learning and influence persistence. Matthews et al., (1996) reported that learning communities build a sense of group identity and indicated that institutions are establishing learning communities for varied purposes (i.e., first-year interest groups, developmental and basic studies, gateway courses, honors programs, and work in major disciplines).

An example of a learning community on today's college campuses is the freshman seminar course (i.e., FMC 101 or University 101) that is offered to all incoming freshmen. According to Hodum and Martin (1994), these courses are effective because they make students aware of the support and services available to them on campus and increase students' satisfaction and success. Further, these researchers point out that satisfied and successful students remain in school. Chonko (1999) supports Hodum and Martin's findings and goes a step further; she indicates that learning communities practiced through the university orientation courses (University 101) impact student involvement, achievement, and retention. The impact



of these orientation courses on participants is reflected in Anselmo's (1997) report on a freshman seminar class reunion. Anselmo (1997) indicated freshman seminar groups with class reunions showed greater student retention and higher rates of achievement.

Other researchers have demonstrated that linking freshman into several classes together and establishing a small group learning communities have had a positive effect on academic persistence (Fernandez et al., 1998; Licklider, 1993; Matthews et al., 1996). It has also been established that learning and study strategies used in learning communities enhance the learning experience (Ellis, 1998; Kern, Fagley & Miller, 1998); and that collaborative learning, practiced in learning communities, affect cognitive levels, and openness to diversity (Cabrera, Nora, Bernal, Terenzini, & Pascarella, 1998).

### Minority Students Retention at Predominantly White Institutions

#### Enrolling and Retaining Black Students

Predominantly White Institutions (PWIs) are experiencing some difficulty in attracting and enrolling black students in significant numbers (Carter & Wilson, 1996; Goodrich, 1980). To overcome this problem, institutions have had to make a concerted effort to enroll black students. In 1991, a consortium of Catholic colleges initiated a nationwide effort to attract minority students to their campuses (Fecher, 1991). The project, called the Neylan Minorities Project, attests to the special efforts PWIs must take and have taken to increase black students representation on their campuses. Attracting black students is only one part of the challenge; retaining them represents the other part. Castle (1993b) addresses this challenge and concludes with a rhetorical question "can we learn to retain them?".

### Efforts to Improve Retention

Predominantly White Institutions (PWIs) are employing many of the retention strategies already discussed to improve black student retention (such as advising, orientation, developmental education, Freshman Year Experience Programs, and the like). Some are working collaboratively to create a more supportive environment for black students as recommended by Castle, 1993b. Castle indicates that many black student leave PWIs because of the lack of a supportive environment; she challenges PWIs to mount an institutional effort to achieve full social integration of minorities into the university's community. Phillip (1993) supports an institutional wide effort; she indicates that too many institutions are still taking the band-aid approach to minority retention. Stewart, Russell and Wright (1997) suggest that PWIs Office of Student Affairs can play a vital role in African-American student retention. To these researchers, the problem with black student retention has less to do with academics and more to do with adjustment. Thompson and Fretz (1991) offered a methodology for PWIs to use to predict black students' adjustment. However, Haralson (1996) suggests that the problem of retaining blacks may be much more complex; he concluded that retention of post-secondary level minority students at PWIs has suffered because higher education research has neither produced a generally accepted theoretical explanation for the successful persistence of some black students on PWIs, nor have PWIs focused on culturally unique non-cognitive type interaction variables that might help to explain the low persistence rates of black students with strong academic backgrounds. Haralson's final point was partially addressed by Davis (1995); she conducted a qualitative study to determine black students' perceptions of the college experience at a PWi. Davis report was informative but only a beginning.

### New Social Integration Initiatives at PWIs

The preceding discussion indicates that one of the major challenges for PWIs is creating a supportive environment for black students. Again, the traditional assimilation strategies are widely used at PWIs. However, three recent initiatives are worthy of being highlighted in this section. Norman and Norman (1995) advocate that efforts to increase minority group students' academic persistence must begin with a faculty renewal effort that encourage faculty to question their cultural beliefs, examine how diversity affects teaching and learning, and foster more collaborative classroom interactions. Additionally, these researchers recommend that faculty acknowledge diverse learning styles and individual differences. Mayo et al. (1995) recommend that student's participation in student organizations and contact with faculty (referred to as formal integration) be encouraged; these researchers found that participation in student organizations and faculty contact have much greater impact on academic performance than does informal social integration. Canagarajah (1997) reported on the benefits of establishing safe houses in contact zones as a mean of assisting African-American students cope at a PWI. Safe houses are learning communities designed to help assimilate black students gradually into the academic culture and improve student retention.

#### Retention at Historically Black Colleges and Universities (HBCUs)

##### The Historically Black College & University (HBCU) Challenge

Because of less stringent admissions requirements (specifically, standardized test score cutoff), smaller institution size, low tuition cost, and supportive environment, many black students have opted to attend a HBCU. Enrollment at HBCUs is expected to rise steadily over the next two decades. Many of the incoming freshmen will be underprepared to work at college level initially (Astin, 1990). Most will require substantial financial aid (Murdock, 1987), and many will meet at least



one characteristic that would categorize them as “at-risk” or “high-risk” (Adams & Smith, 1987; Ryland, Riordan, & Brack, 1994; Sadler, Cohen, & Kockesen, 1997). Like other students entering a strange campus environment, many will arrive with a certain amount of stress (Smedley, Myers, & Harrell, 1993).

#### Accommodating and Assimilating Freshmen Students

An assimilation plan, according to Griffin (1991), at any HBC must address the following key components: financial aid, orientation, advisement, developmental education, and a freshman year experience program. The importance of addressing students' financial aid concerns was examined by Nora and Horvath (1989). These researchers found that adequate financial aid and College Workstudy influenced enrollment and student persistence. To relieve undue stress during the enrollment process, a well-thought out student orientation program is essential (Abraham & Wagnon, 1992; Maxwell, 1999). Academic advising is another crucial service that must be timely and effectively provided (Kern & Engels, 1996; Meadows, 1998). Research indicates that students who are timely and properly advised are more likely to persist than students fending for themselves (Miller & Gerlach, 1997). Because so many incoming students will require developmental courses, by far, the biggest challenge for HBCUs is to meet the needs of new underprepared freshman with creative and innovative developmental education programming, and delivery methods (Boylan, 1999; Koehler, 1996; McCabe & Day, 1998). Freshmen attrition remains the single most important challenge to HBCUs. HBCUs that offer a comprehensive freshman year experience program (FYE), advocated by Gardner (1986), reported less first-year student attrition than institutions that have not adopted the FYE approach (Strommer, 1993).

### Social Integration at HBCUs

Even though a HBCU campus environment is less threatening and relatively homogeneous, new students will still experience transitioning problems and adjustment concerns (Lang & Ford, 1992; Tinto, 1998). Martin and Williams-Dixon (1991) reminded HBCUs that the student-institution fit issue, a central tenet in Tinto's model, applies to black institutions as well. Additionally, Weber and Fleming (1992) emphasize the importance of creating and maintaining a supportive environment. Student-to-student and peer interactions must be facilitated and social networks must be established to maximize students' success (Halstead, 1998; Kraemer, 1993; Sullivan, 1997; Thomas, 1998). Student-faculty interaction is also essential on HBCU campuses according to Fleming (1984). Fleming (1984) postulates that HBCUs facilitate students' academic development through major socialization processes: friendships among peers, faculty, and staff; participation in the life of the campus; and feelings of academic success. With respect to faculty-student contact, Carter (1999) indicates that faculty contact positively affects students' aspirations.

HBCUs Successes and Students' Aspirations and Accomplishments.

Wenglinsky (1997) published a definitive report that supports the continued usefulness of HBCUs. In his report, Wenglinsky indicated that students at HBCUs are more likely to aspire to obtain post-baccalaureate degrees; that students from HBCUs are more likely to persist in graduate studies; and that graduates of HBCUs are more likely to plan on entering a program in the sciences, engineering, or business than were black students from traditionally white schools. Based on these findings, Wenglinsky suggests that HBCUs prepare black students for the sciences and engineering professions in which they are traditionally under represented. Additionally, in large measure, the growing black middle class segment of the U.S.

Society can be attributed to the success of the HBCUs; the vast majority of black middle-class has been educated at HBCUs.

### Summary

Retention research has advanced over the past twenty-five years. In this time, many key retention variables have been isolated and their impact on students' persistence decisions has been studied. From a simple one variable beginning, researchers began to combine retention variables and to develop models to explain and predict retention behavior. Of the six models that emerged from retention research, the longitudinal-process models developed by Vincent Tinto (Student Integration Model- SIM) and John Bean (Student Attrition Model- SAM) have generated the most research. Tinto's Student Integration Model has been successfully applied across all type of institutional settings and student populations. Because Tinto's SIM model and Bean's SAM model overlapped significantly, Cabrera et al., (1993) synthesized the two models and proposed a structural model that accounted for 47 percent of the variance that explains departure behavior. This nine-factor structural model retains the central constructs of SIM and SAM. Most particularly, the model includes the social integration construct among its nine retention factors.

Research on the social integration construct has been varied. However, much of the research can be categorized into four concentration areas: student involvement, student-to-student interactions, student-to-faculty interactions, and collaborative learning communities. The proposed project will investigate the impact of two social integration strategies: learning community and residential setting on students' personal growth, academic performance, and persistence. The study's general hypothesis is that the more connections (social and supportive) a student establishes and sustains on campus, the more likely he or she will persist in college. Specifically,



this study seeks to determine to what extent does learning communities and residential setting affect first-year students' personal growth, their classroom performance, and their subsequent decision to persist in school.

It is expected that students assigned to a learning community (experimental group) and who reside in the resident halls will perform better academically and are more likely to persist than first-year commuter students in the control group.

Additionally, it is expected that students assigned to the experimental group and who reside on campus will report greater personal growth than commuter participants in the control group.

## CHAPTER III

### METHODS

#### Overview

First-year freshmen enrolled at Florida Memorial College were administered The College Board's Computerized Placement Test (CPT). The primary function of CPT is to determine which course placements are appropriate for students and whether or not remedial studies are needed. One hundred fifty first-year students who tested into two or more developmental classes for the fall term were selected to participate in this study. Ninety-two participants were first-year students who had applied to live on-campus in the resident halls; fifty-eight were off-campus, commuter students. To form an experimental group, forty-seven of the resident students and thirty commuter students were assigned to a learning community. This experimental group was assigned to take two or more developmental courses together and they took a third course: the Freshman Seminar Course, FMC 101, together. A control group, consisting of forty-five resident students and twenty-eight commuter students, took the same courses independently. All study participants were administered the College Outcome Survey (COS) in their FMC 101 class at the end of the fall term. The COS was used to determine students' level of satisfaction with their college experiences and to assess personal growth. The COS results were further analyzed and compared. The experimental group was compared with the control group; resident students were compared with commuter students, and the interaction effects between the two independent variables learning community and residential status was examined. Additionally, the COS results were correlated with the experimental and control groups' personal growth, academic performance (GPA), and their persistence (enrollment for spring term).

## Description of Research Design

### Independent and Dependent Variables

A causal comparative study was conducted to determine the impact of learning communities and resident status on first-year students' personal growth, academic performance in assigned developmental courses, and on their decision to persist in college. The first independent variable, learning community, was operationalized by assigning study participants to one of two learning groups: An experimental group and a control group. The second independent variable was resident status; this variable also had two levels: resident student status, for on-campus participants living in the resident halls; and commuter student status, for off-campus students required to commute daily to school. The study focused on three dependent variables. The first dependent variable was students' self-report of personal growth, determined by responses to The College Outcomes Survey. The second dependent variable was academic performance, the participants' overall semester GPA. The third dependent variable was persistence which was determined by the participants' actual enrollment for the spring term.

### Research Design

With two independent variables, a classic 2 x 2 Research Design was used. This design permitted comparisons between learning communities and residential status. Comparisons between resident and commuter students were also conducted. The 2 x 2 design permitted the examination of interaction effects between the two independent variables.

### Population Sample/Participants

Participants were selected from Florida Memorial College's incoming Fall Freshman Class that was expected to exceed 650 new students. From the entering



freshman population, one hundred fifty first-year students were selected using the following criteria: One, they must have tested into two or more developmental classes (Math, English, or Reading); and two, at least half of the sample must reside in the resident halls and the remainder must be off-campus commuter students.

### Instrumentation

#### Computerized Placement Test (CPT)

All incoming freshmen, except those with satisfactory SAT (440 Math, 420 Verbal) or ACT (18) cutoff scores, were administered The College Board's Computerized Placement Test (CPT) by the Testing Center personnel. The CPT is widely used throughout the State of Florida and the nation. Over 970 institutions administer the CPT; of this number, over 250 used the on-line version of the placement test. The CPT assesses students' proficiency in five areas: (a) Reading Comprehension, (b) Sentence Skills, (c) Arithmetic Skills, (d) Elementary Algebra Skills, and (e) College-Level Mathematics. Each test has from 12 to 20 scored questions that usually take about 15 to 20 minutes to complete. The Validity Coefficient of the test is 93 percent. The Reliability Coefficients of the five tests are as follows: (a) Reading, .90; (b) English, .91; (c) Arithmetic, .90; (d) Elementary Algebra, .92; and (e) College-Level Mathematics, .90.

#### Criteria for Placement into Developmental Courses

First-year students scoring below 84 points on the Reading Comprehension test were placed in Developmental Reading (DSR 99). Students scoring below 76 points on the Sentence Skills test were placed in Developmental English (DSE 99). For math, the cutoff score was 60 points; students scoring below 60 points on the Arithmetic Skills test were placed in Developmental Math (DSM 98). Based upon the testing results

over the past four years (see Table 1), on average 57 percent of the incoming freshman class will test into all three developmental classes.

#### College Outcomes Survey (COS)

The College Outcomes Survey is a six-part student survey designed to obtain information about respondents' background (Sections I), college outcomes importance, progress made at the college, views of required courses, and ratings of college experience were assessed in Section II Part A, B and C; personal growth since entering college and college contribution to growth were assessed in Section II Part D, Set 1 and Set 2 respectively; level of satisfaction with given aspects of college was assessed in Section III; and the extent to which educational experience at the college contributed to growth and preparation was assessed in Section IV of the survey. Section V was optional; this section provided space for additional institution peculiar questions to be included. Respondents were also provided space in Section VI to submit comments and suggestions. Use of Section VI of the instrument was optional. A complete listing of the College Outcomes Survey reliability estimates is at Appendix B; a partial listing showing the reliability estimates by Object of Measurement for Section II, Part D, Set 1 and Set 2 is depicted in Table 4.

Table 4

Partial List of Reliability Estimates for College Outcomes Survey

Object of Measurement	Projected number of students per institution	Section of the instrument	
		Section II Part D Set 1 Personal Growth since entering college	Section II Part D Set 2 College Contribution to growth
Item			
	50	.84	.88
	100	.91	.94
	150	.94	.96
	200	.95	.97
	250	.96	.97
	300	.97	.98
	400	.98	.98
	500	.98	.99
Institution			
	50	.46	.60
	100	.63	.75
	150	.72	.82
	200	.77	.86
	250	.81	.88
	300	.84	.90
	400	.87	.92
	500	.89	.94

Source: ACT, Inc. (2000). College Outcomes Survey. Iowa City, IA: Author.

The reliability estimates for the College Outcomes Survey Section II, Part D, Set 1 and Set 2, when administered to 150 students per institution, is .94 and .96 respectively.

#### Procedures

##### Selecting the Experimental Group and the Control Group

Based upon the incoming first-year students' CPT results, one hundred fifty students testing into two or more developmental classes were randomly selected based



upon the additional criteria of residence status. At least ninety participants were selected from students living in the residence hall. At least fifty students were selected from first-year off-campus or commuter students. These two groups were further divided so as to establish an experimental group and a control group. Seventy-seven of the 150 participants were formed into a learning community (or experimental group); they took two or more developmental classes together, along with the Freshman Seminar Class, FMC 101. The control group, consisting of 45 resident and 28 commuter students for a total of 73 students, were randomly assigned to the same three classes. Students in the control group attended classes independent of each other; they were integrated with other first-year students in the General College and assigned to take FMC 101 and at least two developmental courses.

#### Establishing Learning Communities (Experimental Group)

The experimental group was divided into three sections, each with 20 to 25 members; each section constituted a learning community. Members of a learning community attended three classes together, they were also required to complete in-class and out-of-class projects in small work-groups. Experimental group members were required to meet with their instructor/advisor on a weekly basis and they were required to attend a prescribed number of extra-curricular activities throughout the fall term. Students in the experimental group were also encouraged to meet outside of class to discuss assignments or extra-curricular activity experiences.

#### Control Group

Members of the control group were assigned randomly to take the same two developmental courses and FMC 101, but they were integrated with the other 500 or more first-year students assigned to the General College. Control group members completed class requirements independently and individually and there were no

requirements for them to meet regularly with their instructor/advisor. Students in the control group were, however, to attend a minimum number of extra-curricular activities throughout the fall term.

#### College Outcomes Survey (COS) Administration

Study participants completed the COS during the last week of classes before finals. The results of the COS survey were analyzed across the three dependent variables: personal growth responses from the College Outcomes Survey; semester GPA; and students' persistence that was measured by actual enrollment for the spring term.

#### Data Collection

A sample of convenience was administered the College Outcomes Survey at the end of the fall term. Surveys were sent off for scanning and scoring. Survey results were summarized and used as a basis to make comparison between the experimental group (learning communities) and the control group. Demographic and descriptive information was collected from the background sections of the surveys. Participants' semester GPA was obtained from the Office of the Registrar. Persistence data (spring enrollment) was also obtained directly from the Registrar's Office.

#### Data Analysis

Using descriptive statistics (frequency and mean), the study group was described demographically based on data from FMC. The learning community and residence status groups were compared

A 2 x 2 Analysis of Variance (ANOVA) was used to examine the effect of two independent variables: learning community and residential status on the dependent variables. The basic design for this analysis is illustrated in the Table 5 below:

Table 5

Comparison between Student Learning Communities and Residential Setting

Learning Community	Residential Status	
	Resident Students	Commuter Students
Experimental group		
Control Group		

Using this basic 2 x 2 ANOVA design, the first dependent variable, personal growth, as determined from responses on the College Outcomes Survey, was assessed across the two main effects: Learning Community and Residential Status. The ANOVA approach used permitted the examination of the existence and significance of an interaction effect between Learning Community and Residential Status on the continuous dependent variables: Personal Growth and College GPA. The examination of these effects and their interaction yielded results germane to Hypotheses 7 and 8.

Hypotheses 1, 2, 3, and 4 involve a single effect, either learning community or residence status. Consequently, these hypotheses were tested with a one-way ANOVA.

The third dependent variable examined was persistence. Since this dependent variable was dichotomous, the relationships between persistence and learning community, and persistence and residence status were tested using a  $X^2$  statistic from a 2 x 2 cross tabulation table. The interaction effect between the two independent



variables on persistence was examined using  $\chi^2$  statistics from a 2 x 2 x 2 cross tabulation table. These analyses were addressed in Hypotheses 5, 6, and 9.

The effects noted were deemed significant at the  $p < .05$  level meaning that there is a 95% probability that the observed effect can be attributed to the independent variables singularly (main effect), or the combined effect of both independent variables (interaction effect) rather than to random variation.

From these analyses, the nine specific hypotheses enumerated in Chapter 1 were examined and the results are reported in Chapter 4.

## CHAPTER IV

### RESULTS

#### Introduction

During the Fall 2000 term, one hundred seventy-nine first-year students were selected to participate in a study to determine the effects of social integration strategies on their personal growth and on their academic performance during the term. The effects of social integration on students' retention, indicated by their matriculation into the Spring 2001 term, was also of interest. The two social integration strategies investigated were learning communities and residential status. Both of these strategies increase student-to-student interactions, facilitate belongingness, and promote social involvement.

Participants were divided into an experimental and a control group, and these two groups were distinguished by the frequency and quality of interaction experienced in the learning community and in the residential setting. Participants with greater opportunities to interact with peers and to be involved in the college educational experience were expected to report greater personal growth, achieve a higher academic GPA, and to enroll for the spring term in greater numbers than participants in the control group.

#### Demographics

A total of 150 out of 179 first semester freshman students solicited participated in the study. The distribution of these students by Learning Communities and Residential Status is shown in Table 6 below:

Table 6

Distribution of Participants by Learning Communities and by Residential Setting

Learning Community	Residential Status		Total
	Resident Student	Commuter Student	
Experimental Group	47	30	77
Control Group	45	28	73
Total	92	58	150

The study group's gender composition and distribution are shown in Table 7.

All groups were gender balanced.

Table 7

Distribution of Study Participants by Gender

<u>Gender</u>	<u>Experimental</u>	<u>Experimental</u>	<u>Control</u>	<u>Control</u>	<u>Total</u>
	<u>Resident</u>	<u>Commuter</u>	<u>Resident</u>	<u>Commuter</u>	
Male	19 (40.4%)	15 (50.0%)	22 (48.9%)	15 (53.6%)	71 (47.3%)
Female	28 (59.6%)	15 (50.0%)	23 (51.1%)	13 (46.4%)	79 (52.7%)
Total	47 (100.0%)	30 (100.0%)	45 (100.0%)	28 (100.0%)	150 (100.0%)

Note.  $\chi^2 = 1.466$ ,  $df = 3$ ,  $p = .69$



The typical participant in the study sample was a full-time student with a C+ average in high school. Based upon high school GPA, the experimental and control groups were indistinguishable  $t(118) = .16, p = .87$ . Participants' high school and college GPA are compared in Table 8. The average college GPA for participants, at the end of the fall term, was 2.40.

Table 8

Average High School and First Semester College GPA

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<u>Variable</u>	<u>N</u>	<u>M</u>	<u>SD</u>	<u>Minimum</u>	<u>Maximum</u>
HSGPA	120	2.51	.46	2.00	4.00
COLGPA	150	2.40	.77	0.00	3.93

---

The average number of course hours taken by all participants was 13.59 credits. The majority of students from both groups took a minimum of twelve credits and a few took a maximum of 16 credits. Comparatively, the experimental group attempted more course hours than the control groups as shown in Table 9,  $t(124) = 2.94, p = .004$ .

Table 9

Differences in Average Course Hours Attempted

---

<u>Variable</u>	<u>Experimental</u>		<u>Control</u>		<u>df</u>	<u>t</u>	<u>p</u>
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>			
Course Hours	13.91	1.05	13.26	1.56	124	2.94	.004

---

Study participants average personal growth rating on the College Outcomes Survey is shown in Table 10. Recall that this variable is an average of ratings on 36 personal growth items in Section II of the College Outcomes Survey. The average of 3.6 suggests that students typically rated their personal growth slightly above average.

Table 10

Average Personal Growth Rating

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<u>Variable</u>	<u>N</u>	<u>M</u>	<u>SD</u>	<u>Minimum</u>	<u>Maximum</u>
Personal Growth	150	3.62	.77	1	5

---

Note: 5=Very Much, 4=Much, 3=Moderate (Average), 2=Little, 1=None

Research Question Findings

Hypothesis 1: Students in the experimental group will report greater personal growth than control group students.

A one-way analysis of variance (ANOVA) was conducted to evaluate the relationship between Learning Community and the average personal growth score. The ANOVA was not significant,  $F(1,148) = 0.48$ ,  $p = 0.49$ . The mean scores are shown in Table 11, and the ANOVA source table is summarized in Table 12.

Table 11

Means and Standard Deviations for Personal Growth by Learning Community

<u>Learning Community</u>	<u>M</u>	<u>SD</u>	<u>95% Confidence Interval</u>	
			<u>Lower Bound</u>	<u>Upper Bound</u>
Experimental ( <u>n=77</u> )	3.576	.088	3.403	3.749
Control ( <u>n=73</u> )	3.663	.090	3.485	3.841

Table 12

One Way Analysis of Variance (ANOVA) for Effects of Learning Community on Personal Growth

<u>Variable and Source</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
<u>Learning Community</u>				
Between Communities	1	.283	.479	.490
Within Communities	148	.591		

The Experimental Learning Community Group did not report greater personal growth, as expected. Therefore, hypothesis 1 was rejected.

Hypothesis 2: Resident students will report greater personal growth than commuter students.

A one-way analysis of variance (ANOVA) was conducted to evaluate the relationship between residential status and the average personal growth score. The



ANOVA was not significant,  $F(1,148) = 2.20$ ,  $p = 0.14$ . The mean scores and standard deviations are shown in Table 13, and the ANOVA source table is summarized in Table 14.

Table 13

Means and Standard Deviations for Personal Growth by Residential Status

<u>Residential Status</u>	<u>M</u>	<u>SD</u>	<u>95% Confidence Interval</u>	
			<u>Lower Bound</u>	<u>Upper Bound</u>
Resident (n=92)	3.692	.080	3.534	3.849
Commuter (n=58)	3.502	.100	3.304	3.700

Table 14

One Way Analysis of Variance (ANOVA) for Effects of Residential Status on Personal Growth

<u>Variable and Source</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
<u>Residential Status</u>				
Between Resident Groups	1	1.283	2.195	.141
Within Residential Groups	148	.585		

Resident students did not report greater personal growth than commuter students. Hypothesis 2 was rejected.

Hypothesis 7: Students in the experimental group that reside on campus will report greater personal growth than other students.

A 2 x 2 ANOVA was conducted to evaluate the effects of Learning Community and Residential Status on the average personal growth score. The means and standard deviations for average personal growth as a function of Learning Community and Residential Status are presented in Table 15. The ANOVA (Table 16) indicated no significant interaction between Learning Community and Residential Status,  $F(1,146) = 1.78, p = 0.18$ ; no significant effect for Learning Community  $F(1, 146) = 0.95, p = 0.33$ ; and no significant effect for Residential Status  $F(1,146) = 2.07, p = 0.15$ .

Table 15

Means and Standard Deviations for Personal Growth by Learning Community and Residential Status

Learning Community and Residential Status	M	SD	95% Confidence Interval	
			Lower Bound	Upper Bound
Experimental Commuter ( <u>n</u> =30)	3.359	.139	3.084	3.849
Experimental Resident ( <u>n</u> =47)	3.715	.111	3.494	3.935
Control Commuter ( <u>n</u> =28)	3.655	.144	3.369	3.940
Control Resident ( <u>n</u> =45)	3.668	.114	3.443	3.893

Table 16

Two Way Analysis of Variance (ANOVA) for Effects of Learning Community and Residential Status on Personal Growth

Variable and Source	df	MS	F	p
Residential Status	1	1.208	2.070	.152
Learning Community	1	.552	.945	.333
Residential Status X Learning Community	1	1.038	1.779	.184
Within Groups	146	.584		

Therefore, residential status, learning community, and their interaction did not have a statistically significant effect on average personal growth. Hypothesis 7 is therefore rejected.

Hypothesis 3: Students in the experimental group will achieve a higher GPA during the fall term than students in the control group.

A one-way analysis of variance (ANOVA) was conducted to evaluate the relationship between Learning Community and College GPA. The ANOVA was significant,  $F(1,148) = 5.28$ ,  $p = 0.05$ . The mean scores and standard deviations are shown in Table 17, and the ANOVA source table summarized in Table 18.



Table 17

Means and Standard Deviations for College GPA by Learning Community

<u>Learning Community</u>	<u>M</u>	<u>SD</u>	<u>95% Confidence Interval</u>	
			<u>Lower Bound</u>	<u>Upper Bound</u>
Experimental ( <u>n=77</u> )	2.265	.086	2.094	2.436
Control ( <u>n=73</u> )	2.550	.089	2.374	2.725

Table 18

One Way Analysis of Variance (ANOVA) for Effects of Learning Community on College GPA

<u>Variable and Source</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
<u>Learning Community</u>				
Between Communities*	1	3.036	5.281	.046
Within Communities	148	.575		

\*p = <.05

The Control Learning Community student's average GPA was higher than the experimental group. Therefore, hypothesis 3 was rejected.

Hypothesis 4: Resident students will achieve a higher GPA during the fall term than commuter students.

A one-way analysis of variance (ANOVA) was conducted to evaluate the relationship between Residential Status and College GPA. The ANOVA was not

significant,  $F(1,148) = 0.08$ ,  $p = 0.78$ . The mean scores and standard deviations are shown in Table 19, and the ANOVA source table is presented in Table 20.

Table 19

Means and Standard Deviations for College GPA by Residential Status

<u>Residential Status</u>	<u>M</u>	<u>SD</u>	<u>95% Confidence Interval</u>	
			<u>Lower Bound</u>	<u>Upper Bound</u>
Resident	2.390	.080	2.231	2.548
Commuter	2.426	.101	2.226	2.626

Table 20

One Way Analysis of Variance (ANOVA) for Effects of Residential Status on College GPA

<u>Variable and Source</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
<u>Residential Status</u>				
Between Resident Groups	1	.048	.080	.777
Within Residential Groups	148	.595		

The College GPA of resident students did not differ significantly from commuter students. Hypothesis 4 was rejected.

Hypothesis 8: Students in the experimental group that reside on campus will achieve a higher GPA than other students.

Residential status and learning community and their interaction did not have a statistically significant effect on College GPA. The ANOVA (Table 21) indicated no

significant interaction between Learning Community and Residential Status,  $F(1,146) = 1.03$ ,  $p = 0.31$ ; and there was no significant effect for Residential Status  $F(1,146) = 0.07$ ,  $p = 0.79$ . There was a significant effect for Learning Community  $F(1, 146) = 4.01$ ,  $p = 0.05$

Table 21

Two-Way Analysis of Variance (ANOVA) for Effects of Learning Community and Residential Status on College GPA

Variable and Source	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
Residential Status	1	.043	.074	.786
Learning Community*	1	2.319	4.009	.046
Residential Status x Learning Community	1	.598	1.034	.312
Within Groups	146	.578		

\* $p < .05$

The Two-Way ANOVA shows a significant main effect of Learning Community on College GPA. This effect, reported in Table 18, does not support hypothesis 8 because the control group performed better academically than the experimental group. Also, residential status or the interaction of learning community and residential status did not have a statistically significant effect on College GPA. Therefore, hypothesis 8 is rejected.

Hypothesis 5: Students in the experimental group will be more likely to persist than students in the control group.

A one-sample chi-square test was conducted to assess whether Learning Community affected persistence as measured by first semester retention. The results



of the test were not significant,  $X^2(1, N=144) = 59, p = .44$ . Table 22 summarizes Spring 2001 enrollment by Learning Community. Therefore, hypothesis 5 was rejected.

Table 22

Comparing Persistence by Learning Community

<u>Learning Community</u>	<u>Did not Enroll (Drop Out)</u>	<u>Enrolled (Persist)</u>	<u>Total</u>
Experimental	4 (5.2%)	73 (94.8%)	77 (100.0%)
Control	2 (2.7%)	71 (97.3%)	73 (100.0%)
Total	6 (4.0%)	144 (96.0%)	150 (100.0%)

Note.  $X^2 = .588, df = 1, p = .443$

Hypothesis 6: Resident students will be more likely to persist than commuter students.

A one-sample chi-square test was conducted to assess whether Residential Status affected persistence as measured by first semester retention. The results of the test were not significant,  $X^2(1, N=144) = .34, p = .56$ . Table 23 summarizes Spring 2001 enrollment by Residential Status. Therefore, hypothesis 6 was also rejected.

Table 23

Comparing Persistence by Residential Status

<u>Residential Status</u>	<u>Did not Enroll (Drop Out)</u>	<u>Enrolled (Persist)</u>	<u>Total</u>
Resident	3 (3.3%)	89 (96.7%)	92 (100.0%)
Commuter	3 (5.2%)	55 (94.8%)	58 (100.0%)
Total	6 (4.0%)	144 (96.0%)	150 (100.0%)

Note.  $X^2 = .339$ ,  $df = 1$ ,  $p = .561$

Hypothesis 9: Students in the experimental group that reside on campus will be more likely to persist than other students.

Residential status, learning community, and their interaction did not have a statistically significant effect on persistence. A one-sample chi-square test was conducted to assess whether learning community and residential status affected persistence as measured by first semester retention. The effect of learning community was not significant for resident students,  $X^2 (1, N = 92) = 2.97$ ,  $p = .09$ ; and not significant for commuter students,  $X^2 (1, N = 58) = .43$ ,  $p = .51$ . Table 24 summarizes Spring 2001 enrollment by Learning Community and Residential Status. Hypothesis 9 was rejected.

Table 24

Comparing Persistence by Learning Community and Residential Status

<u>Residential Status</u>		Did not Enroll	Enrolled	<u>Total</u>
		<u>(Drop Out)</u>	<u>(Persist)</u>	
Resident <sup>(1)</sup> Learning Community				
Experimental		3 (6.4%)	44 (93.6%)	47 (100.0%)
Control			45 (100.0%)	45 (100.0%)
Total		3 (3.3%)	89 (96.7%)	92(100.0%)
Commuter <sup>(2)</sup> Learning Community				
Experimental		1 (3.3%)	29 (96.7%)	30 (100.0%)
Control		2 (7.1%)	26 (92.9%)	28 (100.0%)
Total		3 (5.2%)	55 (94.8%)	58 (100.0%)

Note. (1)  $X^2(1, 92) = 2.97$   $p = .09$ ; (2)  $X^2(1, 58) = .43$ ,  $p = .51$

Individual Item AnalysisContribution College Educational Experiences had on Personal, Intellectual, and Social Growth

Three College Outcomes Survey items, germane to the central thesis of this study, were selected for further analysis. Participants' responses to the item, "How large a contribution do you feel your educational experiences at this college have made to your growth and preparation in each of the following areas: Personal Growth, Intellectual Growth and Social Growth" were examined. Table 25 shows group responses for personal growth by Learning Community and by Residential Status.



The  $\chi^2$  statistic for Table 25 is not reliable because forty-five percent (45%) of the cells in the table have expected values less than five.

Table 25

Comparing the College Contribution through Educational Experiences on Personal Growth

Contribution to Personal Growth	Experimental Resident	Experimental Commuter	Control Resident	Control Commuter	Total
Very Great	10 (21.3%)	7 (23.3%)	6 (13.3%)	2 (7.1%)	25 (16.7%)
Great	14 (29.8%)	8 (26.7%)	19 (42.2%)	12 (42.9%)	53 (35.3%)
Moderate	21 (44.7%)	11 (36.7%)	16 (35.6%)	14 (50.0%)	62 (41.3%)
Little	1 (2.1%)	1 (3.3%)	4 (8.9%)		6 (4.0%)
None	1 (2.1%)	3 (10.0%)			4 (2.7%)
Total (100%)	47 (100%)	30 (100%)	45 (100%)	28 (100%)	150

Note.  $\chi^2 = 18.783$ ,  $df = 2$ ,  $p = .094$

When personal growth categories were collapsed into three groups: Very Great, Great, and Moderate, a significant difference between the experimental and control groups' responses were observed as shown in Table 26,  $\chi^2 = 4.887$ ,  $df = 2$ ,  $p = .044$ .

Table 26

Combining Learning Community Responses and Comparing the College Contribution through Educational Experiences on Personal Growth

<u>Contribution to Personal Growth</u>	<u>Experimental</u>	<u>Control</u>	<u>Total</u>
Very Great	17 (22.1%)	8 (11.0%)	25 (16.7%)
Great	22 (28.6%)	31 (42.5%)	53 (35.3%)
Moderate	38 (49.4%)	34 (46.8%)	72 (48.0%)
Total	77 (100%)	73 (100%)	150 (100%)

Note.  $\chi^2 = 4.887$ ,  $df = 2$ ,  $p = .044$

The experimental group rated the college's contribution to their personal growth higher than students in the control group. The difference between the two groups' ratings were significant at the  $p < .05$  level of significance.

There were no differences between the experimental group and the control group on the College's contribution through educational experiences on Intellectual Growth and Social Growth; these results are shown in Appendix D and Appendix E, respectively.

Participants Satisfaction with Given Aspects of the College

Six survey items dealing with participants' satisfaction with particular aspects of the college relevant to persistence and personal growth were examined. The six aspects selected were: faculty respect for students; quality of instructions; availability of faculty for office appointments; concern for me as individual; informal contact with students in non-academic settings, and my sense of belonging on this campus. The Experimental and Control groups responded similarly on each of the six survey items;

differences observed were not significant. The results of these six analyses are shown in Appendix F through Appendix K.

### Academic Plans

The College Outcomes Survey allowed students to indicate their plans for the next academic year. Responses to this survey item are shown in Table 27. Of the 150 participants, five study participants, representing 3.3% of the sample, were undecided about their plans for next year. Table 27 shows that experimental commuter and control resident students responses were similar and that they differed significantly from the experimental resident and control commuter,  $X^2 = 15.275$ ,  $df = 6$ ,  $p = .018$ .

Table 27

### Comparing Students Plans for the Next Academic Year (Undecided Omitted)

<u>Next Year Plans</u>	<u>Experimental Resident</u>	<u>Experimental Commuter</u>	<u>Control Resident</u>	<u>Control Commuter</u>	<u>Total</u>
Plan to Enroll	34 (72.3%)	29 (96.7)	42 (93.3)	21 (75.0%)	126 (84.0%)
Plan to Enroll at another College	11 (23.4%)	1 (3.3%)	1 (2.2%)	6 (21.4%)	19 (12.7%)
Undecided	2 (4.3%)		2 (4.4%)	1 (3.6%)	5 (3.3%)
Total	47 (100%)	30 (100%)	45 (100%)	28 (100%)	150 (100%)

Note.  $X^2 = 15.275$ ,  $df = 6$ ,  $p = .018$

Further comparisons were conducted in order to determine which groups differed significantly with respect to their academic plans for the next year. The finding shows that the control resident student plans for the next academic year were significantly different from the control commuter students' plans as shown in Table 28,  $X^2 = 7.344$ ,  $df = 2$ ,  $p = .025$ .



Table 28

Comparing the Control Learning Community Resident and Commuter Students' Plans for the Next Academic Year

<u>Next Year Plans</u>	<u>Control Resident</u>	<u>Control Commuter</u>	<u>Total</u>
Plan to Enroll	42 (93.3%)	21 (75.0%)	63 (86.3%)
Plan to Enroll at another College	1 (2.2%)	6 (21.4%)	7 (12.7%)
Undecided	2 (4.4%)	1 (3.6%)	3 (4.1%)
Total	45 (100%)	28 (100%)	73 (100%)

Note.  $X^2 = 7.344$ ,  $df = 2$ ,  $p = .025$

The experimental commuter students' next year academic plans were significantly different from the experimental resident students' academic plans for next year as shown in Table 29,  $X^2 = 7.344$ ,  $df = 2$ ,  $p = .026$ .

Table 29

Comparing the Experimental Learning Community Resident and Commuter Students' Plans for the Next Academic Year

<u>Next Year Plans</u>	<u>Experimental Resident</u>	<u>Experimental Commuter</u>	<u>Total</u>
Plan to Enroll	34 (72.3%)	29 (96.7%)	63 (81.8%)
Plan to Enroll at another College	11 (23.4%)	1 (3.3%)	12 (15.6%)
Undecided	2 (4.3%)		2 (2.6%)
Total	47 (100%)	30 (100%)	77 (100%)

Note.  $X^2 = 7.344$ ,  $df = 2$ ,  $p = .026$

The next year academic plans for the experimental commuter and the control commuter were also statistically different. The Crosstab results and Chi-Square for this comparison are shown in Table 30,  $X^2 = 5.789$ ,  $df = 2$ ,  $p = .055$ .

Table 30

Comparing Experimental and Control Commuter Students' Plans for the Next Academic Year

<u>Next Year Plans</u>	<u>Experimental Commuter</u>	<u>Control Commuter</u>	<u>Total</u>
Plan to Enroll	29 (96.7%)	21 (75.0%)	50 (86.2%)
Plan to Enroll at another College	1 (3.3%)	6 (21.4%)	7 (12.1%)
Undecided		1 (3.6%)	1 (1.7%)
Total	30 (100%)	28 (100%)	58 (100%)

Note.  $X^2 = 5.789$ ,  $df = 2$ ,  $p = .055$

The next year academic plans for residential students in the experimental and control groups were compared. The results, shown in Table 31, indicate that the control resident student's plans differed significantly from the experimental resident student's plans ( $X^2 = 9.136$ ,  $df = 2$ ,  $p = .010$ ).

Table 31

Comparing Experimental and Control Resident Students' Plans for the Next Academic Year

<u>Next Year Plans</u>	<u>Experimental Resident</u>	<u>Control Resident</u>	<u>Total</u>
Plan to Enroll	34 (72.3%)	42 (93.3%)	76 (82.6%)
Plan to Enroll at another College	11 (23.4%)	1 (2.2%)	12 (13.0%)
Undecided	2 (4.3%)	2 (4.4%)	4 (4.3%)
Total	47 (100%)	45 (100%)	92 (100%)

Note.  $X^2 = 9.136$ ,  $df = 2$ ,  $p = .010$

Participants academic plans for the next academic year differed significantly and in some cases unexpectedly. Table 32 summarizes the findings reported in Tables 28-31.

Table 32

Summary of Academic Plans Findings

<u>Comparison Variable</u>	<u>Table</u>	<u>Findings</u>	<u>p</u>
Control	28	Resident differed from Commuter	.025
Experimental	29	Commuter differed from Resident	.026
Commuter	30	Experimental differed from Control	.055
Residential Status	31	Control differed from Experimental	.010



### Will Choose College Again

The last individual item examined from the College Outcomes Survey asked students to indicate would they choose the college again, if they were choosing a college. The experimental and control group responses were not significantly different on this item,  $\chi^2 = 13.383$ ,  $df = 12$ ,  $p = .342$ . The detail results are reported in Appendix L.

## CHAPTER V

### DISCUSSION

#### Introduction

Over the past fifteen years, several social integration strategies have been used to enhance students' educational experiences and to improve student persistence. Specifically, the following social integration strategies: learning communities, collaborative learning techniques, extracurricular involvement, student-faculty contact, and peer mentoring have been used with varying degrees of success (Astin, 1984; Kellogg, 1999; Lovelady, 1992; Mayo, Murgula, & Padilla, 1995; Shucker, 1987). In this study, the social integration strategy of learning community was examined. Residential status, another social integration strategy, was also examined. Residential status has been proven to influence a student's decision to persist in college (Kanoy & Bruhn, 1996; Pascarella & Terenzini, 1980a, 1980b, 1911), and to positively impact a student's academic and personal development (Inman & Pascarella, 1997; Zeller, 1991).

#### Restatement of the Purpose

This study investigated the effects of Learning Community and Residential Status on First-Year Students' personal growth, on their academic performance, and on their decision to persist in college beyond the fall term. The study was conducted at a four-year private historically black liberal arts college. One hundred-fifty first-year students enrolled in two developmental classes and in FMC 101 at Florida Memorial College during the Fall 2000 term participated in the study. Participants were further divided into two learning community groups: An experimental group consisting of seventy-seven students was assigned to take their three classes together as a cluster or cohort. A control group totaling seventy-three students took the same

three classes but they were individually and randomly assigned to different course sections. Participants were also divided by residential status. Of the 150 participants, ninety-two resided on-campus in the resident halls and fifty-eight were commuter students.

Students residing on-campus and attending classes under the learning community concept were expected to report higher personal growth, to achieve a higher GPA, and to be more likely to persist in college than commuter students in the control group. The findings did not support these predictions. The expected differences between the experimental and control groups as hypothesized were not observed. A discussion of the findings by dependent variable follows.

#### Summary of Findings by Dependent Variable

##### Personal Growth

Hypotheses 1, 2, and 7 examined the impact of learning community, residential status, and learning community and residential status respectively on personal growth. Over the past two decades, research has demonstrated that the benefits of learning communities extend beyond students-to-faculty, and student-institution satisfaction (Kellogg, 1999). It has been reported that a learning community creates and sustains a sense of community among students (Matthew et al, 1996; Tinto, 1997a, 1997b; Tucker, 1999).

Within the learning community established at FMC, students in the experimental group were required to work collaboratively to complete in-class and out-of-class group assignments, they were required to attend extra-curricula activities together, and they were required to meet weekly with either their advisor or their instructor. Participants in the control group took the same courses but were expected to complete course assignments independently and individually.



With respect to hypothesis 1, the average personal growth rating for participants assigned to the experimental learning community was not significantly different from the average personal growth rating by control group members (See Table 11). This finding is inconsistent with the literature. Several researchers have reported that learning communities have a positive impact on students' academic and social integration (DuFour & Eaker, 1998; Hyman, 1995; Morrisey, 1991; Tinto, 1994a). More specifically, Terenzini and Wright (1987) reported that the increase in student-to-student contact fostered by learning community had a positive effect on students' personal growth and development. Nevertheless, the experimental group students did not report a higher average personal growth as expected.

Similarly, resident students could not be distinguished from commuter students based upon their average personal growth rating. Therefore, hypothesis 2 that stated that resident students would report greater personal growth than commuter students was rejected (Table 14). This finding is also inconsistent with reports in the literature. A growing body of evidence suggests that students residing in on-campus housings tend to perform better academically, and are more socially connected than non-resident off-campus commuter students (Pascarella, 1985a; Pike et al, 1997; Terenzini & Pascarella, 1984). Pascarella, Duby, Terenzini, and Iverson (1983) found that residency positively influenced educational and personal growth.

The hypothesized interaction effect (hypothesis 7) between learning community and residential status on personal growth, reported in Table 16, was also rejected.

There could be several explanations for the lack of significant findings on this dependent variable. Personal growth is a difficult concept for first semester freshman to grasp. Students in their first semester of college experience so many changes



during this initial period. Changes associated with meeting the challenge of managing expanded liberties due to less parental control, and changes required to meet the increased responsibilities of handling the rigors of the financial aid process and to living within a restricted budget exact a toll on first-year students (Cabrera, et al, 1992). With these pressures weighing on participants, it may have been difficult for them to distinguish between personal growth and the upheavals they were experiencing otherwise. Unsure of its meaning, participants avoided rating personal growth on either extreme. An indication that participants were unsure of themselves in this regard was discerned from their personal growth ratings. Rather than rating their personal growth on either extreme of the continuum (from 5-Very Much; to 1-None), they tended to rate in the middle of the personal growth continuum (3-Moderate or Average). This "middle of the road" tendency is observed in the mean scores at Tables 10 and 15.

This uncertainty and central tendency may have been due to insufficient time in the collegiate environment to experience meaningful growth. Students may have felt that the relatively short time lapse between the beginning and ending of the semester (16 weeks) was not sufficient for them to detect and ascribe changes in their personal growth. Personal growth is one of those internal constructs that is best appreciated and assessed over an extended period of time (longitudinally), or at least over a full year (Pascarella, 1985a, 1985b; Conklin, 1991).

A third factor that may explain the lack of differentiation between the experimental and control group and between residential students and commuter students may be within the survey instrument itself. The personal growth section of the College Outcomes Survey (COS) instrument contains 36 items. These items were averaged to obtain a group personal growth rating. The validity and reliability

of the College Outcomes Survey is well documented and coefficient for both are within acceptable standards; however, the validity and reliability data reported applies to the total survey. The efficacy of the total COS may not apply equally to each subsection of the instrument. Therefore, consideration should be given to the personal growth section of the survey in order to determine the specific validity and reliability of this section.

Rather than questioning the effectiveness of the COS instrument, a more fruitful discussion on participants' perspective, internal versus external, used to evaluate personal growth is suggested. Noting that participants may have experienced difficulty in detecting, assessing, and reporting their personal growth introspectively, a less daunting question to have posed to study participants would have been "how large a contribution do you feel your educational experiences at this college have made to your growth and preparation". This question changes the perspective; participants are no longer required to sort out their internal views on personal growth. Instead, they can focus externally and rate the college's contribution to their personal growth. Indeed, the College Outcomes Survey allows for this evaluation in another section of the survey; one item asked participants to assess the campus contribution to their personal growth. The experimental and control groups responses were significantly different on this item as shown in Table 26 below.

Table 26

Combining Learning Community Responses and Comparing the College Contribution through Educational Experiences on Personal Growth

<u>Contribution to Personal Growth</u>	<u>Experimental</u>	<u>Control</u>	<u>Total</u>
Very Great	17 (22.1%)	8 (11.0%)	25 (16.7%)
Great	22 (28.6%)	31 (42.5%)	53 (35.3%)
Moderate	38 (49.4%)	34 (46.8%)	72 (48.0%)
Total	77 (100%)	73 (100%)	150 (100%)

Note.  $\chi^2 = 4.887$ ,  $df = 2$ ,  $p = .0435$

When college contribution, an external perspective instead of an internal perspective, to personal growth became the evaluative focus, the experimental group rated the college contribution to their personal growth higher than the control group. The difference between the two groups ratings was significant at the  $p < .05$  level. These results suggest that first semester participants were cautious and less forthcoming about rating their personal growth introspectively; however, they were more definitive when it came to reporting the College's contribution to their personal growth. This finding should be examined in a subsequent study.

Sufficient time (at least a year), then, should elapse in order to obtain a meaningful introspective assessment of personal growth using a subjective response-item instrument. When less time is available, a qualitative study may offer a more viable option to evaluate personal growth. Another effective approach for personal growth investigations, most especially those conducted within the brief period of one academic semester, would be to solicit responses pertaining to the college's contributions allowing students to report on their external perceptions (Braxton, Bray,



& Berger, 2000) as opposed to requiring them to report on an internal state of being.

#### Academic Achievement (College GPA)

Hypotheses three, four, and eight examined the impact of learning community, residential status, and learning community and residential status respectively on academic achievement.

Current literature supports the position that students in learning communities perform better academically and achieve a greater degree of academic success (Chonko, 1999; Halstead, 1998; Kanoy & Bruhn, 1987; Shucker, 1987; Whitt et al, 1999). Fernandez et al (1998) reported that learning community students obtain a higher GPA than students in a control group.

The findings in this study contradict these reports. The overall average College GPA for participants in this study was 2.40. The average College GPA for participants in the experimental group was 2.265; whereas, the average College GPA for participants in the control group was 2.550. Therefore, hypothesis 3 that stated that students in the experimental group would achieve a higher GPA than students in the control group was rejected.

This marked difference between the experimental and control groups was not duplicated with respect to residential status. Residential students, even though they posted a slightly lower College GPA, were not significantly different, academically, from commuter students. It was postulated in hypothesis 4 that residential students would achieve a higher GPA during the fall term than commuter students. Based on the findings reported in Tables 19 and 20, hypothesis 4 was also rejected.

Additionally, the combined effect of learning community and residential status did not influence the academic achievement of participants as expected. Consequently, hypothesis 8 was not supported.



Learning community and residential living increases student-to-student interactions and interactions between students and faculty. This increase in interactions has proven to have a positive effect on a student's academic success (Braxton, Milem, & Sullivan, 2000; Pascarella, 1985a; Pascarella, Duby, Terenzini, & Iversion, 1983; Pike et al, 1997). So the question becomes what mitigated these positive effects in the current study.

One mitigating factor may have been instructional methodology. The experimental group was required to work collaboratively on group projects. The instructional methodology used in this cooperative learning environment certainly differed from the methods used with control group members who found themselves in much larger classes with other students where lecture was the preferred instructional methodology. Consequently, instructional methodology is a confounding variable that could very well explain the difference between the experimental group and the control group academic achievement.

Collaborative learning techniques usually improve the educational experiences of participants (Gabelnick, et al, 1990; Tinto, 1997a, 1997b). This positive effect was not apparent in this study. Perhaps this was because the techniques used (group in-class projects, and group out-of-class projects) were inconsistently applied by the instructors.

Another mitigating factor may have been instructor bias (Ross, 1995). Instructors assigned to teach the experimental group students were briefed by the General College Division Chairperson that they would be teaching a cohort using collaborative learning techniques and that cohort members must participate in several extracurricular activities during the term. The General College Division Chairperson's involvement, an implementer effect (Rousseau & Tam, 1996), could

have pre-disposed experimental group instructors to consciously or unconsciously grade members of the experimental group differently.

A third factor is participants' attitude. When participants are singled out, they tend to respond more productively regardless of the nature of attention. This phenomenon is referred to as the "Hawthorne Effect" (Diaper, 1990; Raywid, 1979; Sanogo & Gilman, 1994). Experimental students did not manifest the Hawthorne Effect phenomenon as expected. However, a corollary to the Hawthorne Effect is the "John Henry Effect" also referred to as "Compensatory Rivalry" (Clark & Lenard, 1985). A John Henry effect is evident when participants in the control group endeavor to out perform those in the special or experimental group.

Because of the many student-to-student interaction possibilities within the General College and the Freshman Year Experience Program, students in the experimental group more than likely interacted with students in the control group as a matter of course. During these interactions, discussions may have occurred to sensitize participants to the fact that they were being treated differently. In response, control group members may have engaged in compensatory rivalry. The John Henry effect may account for the observation that control group students did better academically than experimental group students. In other words, the control group responded to the differential treatment by striving to either equal or exceed the academic performance of experimental group members. Indeed, the control group's average college GPA was higher than the experimental group's college GPA.

A fourth factor advanced to explain the difference in academic performance between the experimental group and the control group is too much social interaction. The literature reports that increased contact between students and between students and faculty can have a positive effect on educational outcomes and personal

development (Astin, 1985; Pascarella & Terenzini, 1981; Shucker, 1987; Terenzini & Pascarella, 1980). However, at least one researcher, Durante, 1998, cautioned that too much social interaction among peer groups could have a negative impact on students' academic performance. Although unlikely, one cannot dismiss the possibility that too much student-to-student interaction and student-to-faculty interaction in such a compressed time period, one semester, may have negatively influenced the experimental group's educational outcomes.

### Persistence

The three hypotheses associated with persistence, hypotheses 5, 6, and 9, were rejected. Of the 150 participants in the study, ninety-six percent (96%) enrolled for the Spring 2001 term (See Table 22). Ninety-five percent (95%) of the experimental group enrolled for the Spring 2001 term while ninety-seven percent (97%) of the control group enrolled.

Table 22

### Comparing Persistence by Learning Community

<u>Learning Community</u>	<u>Did not Enroll (Drop Out)</u>	<u>Enrolled (Persist)</u>	<u>Total</u>
Experimental	4 (5.2%)	73 (94.8%)	77 (100.0%)
Control	2 (2.7%)	71 (97.3%)	73 (100.0%)
Total	6 (4.0%)	144 (96.0%)	150 (100.0%)

Note.  $X^2 = .588$ ,  $df = 1$ ,  $p = .443$

With only four percent (.04%) of the study participants dropping out of college after the Fall 2000 term, the effects of Learning community and residential status could not be differentially discerned. This suggests that a one semester



evaluation period, at least for persistence, is too brief a period and that the evaluation period should be extended to include the entire Freshman year. Most freshman dropout statistics covers the first year (ACT, 2000). In Fernandez, et al (1998), the evaluation period covered a full academic year; whereas, the mandatory involvement in the pilot program only covered the first semester.

It would be interesting to follow up the participants of this study in the Fall of 2001 to determine how many enrolled for their Sophomore year. With over twenty percent (20%) of the freshman class not expected to matriculate to the Sophomore year, one would expect more participants in the study not to enroll; a Fall 2001 enrollment snap shot may provide more evaluative data.

### Satisfaction with Selected Aspects of the College

#### Satisfaction and Persistence

Six survey items correlated with Tinto's institutional fit concept (Tinto, 1987), and aligned with Astin's Student Involvement posits (Astin, 1984) were examined. Participants rated their satisfaction with the following aspects of the college: faculty respect for students; quality of instructions; availability of faculty for office appointments; concern for me as a student; informal contact with students in non-academic settings; and my sense of belonging on this campus. As reported, the experimental and control groups responded similarly on these items.

While the two groups could not be distinguished by their responses, it is interesting to note that the majority of the respondents indicated that they were either very satisfied or satisfied on each of the six survey items. The next major group of participants recorded a neutral response (neither satisfied or dissatisfied). Given this level of satisfaction with the selected aspects of the college, it was no surprise to see that ninety-six percent (96%) of the participants enrolled for the Spring 2001 term.

This observation lends credence to the axiom satisfied students are likely to persist (Liu & Liu, 2000; Tinto, 1990; Thomas, 2000; Wortman & Napoli, 1996).

### Academic Plans

If satisfied students are likely to persist, then one would expect that satisfied students would plan to enroll at the same institution the next academic year. Study participants were asked to indicate their plans for the next academic year. Eighty-four percent (84%) of the 150 participants indicated that they planned to enroll; thirteen percent (13%) reported that they planned to enroll at another college. Another three percent (3%) of the participants indicated that they were undecided about their plans for next year. Upon further examination of these responses, it was interesting to note that students in the experimental commuter group posted a higher percent (96.7%) for enrollment plans than did students in the experimental resident group (72.3%). This finding was unexpected. One would have expected experimental resident students to report higher enrollment intentions than experimental commuter students. A similar unexpected finding was observed between control commuter and control resident students. Ninety-three percent (93%) of the control commuter group planned to enroll next year; whereas, seventy-five (75%) of the control resident group indicated similar plans.

These results may very well represent an anomaly since they do not support the consistent body of literature. What is consistent with the literature is that students satisfied with their college educational experience not only persisted, but they also enrolled the next year at the same institution (Astin, 1987, 1997; Tinto, 1998). One hundred twenty-six (126) participants out of 150 indicated that they plan to enroll.

### Will Choose College Again

When participants were asked to indicate if they would choose the same college again, the majority indicated that they would. Only twenty-three percent (23%) of 150 said they would not choose the same college. Determining why participants would not choose the same college is beyond the scope of this project. Much, however, can be gained from an investigation into this question. Seventy-seven percent (77%) of the participants indicated that they would choose the same college. This finding is consistent with the academic plans for next year's data reported earlier and with the institutional fit postulations advanced by Tinto (1987) and refined by Tucker (1999).

### Application of Results

The findings in this study were inconclusive but suggestive. Since the data did not support the research questions and hypotheses studied, the first line of inquiry would be to determine why not. One can question the theory used to frame the research questions, or one can question the design of the study. With respect to the personal growth construct, one would also want to ensure that the instrument used to evaluate this construct is effective at discerning levels of personal growth. The instrument's discernment efficacy should have been demonstrated, most especially, within a limited time period of one semester, and with a sample of developmental students attending a small private historically black higher education institution. Having reconciled any concerns in these areas, one then can examine the procedures used to establish and sustain the learning community approach implemented throughout the study period.

With a sound theoretical base and with substantial research underscoring the hypotheses, the findings reported herein should stimulate subsequent efforts to clarify



the effect learning community and residential status have on first-year students' personal growth, academic achievement, and persistence. The real story has yet to be told.

#### Limitation of the Study

An investigator seeking to replicate this study and to determine the effects of learning community and residential status on personal growth, academic achievement, and persistence is cautioned to identify and take the necessary measures to control all relevant extraneous and confounding variables. Some extraneous variables that must be addressed are influences due to instructional methodology, instructor biases, and student attitudes. These confounding variables can distort results.

For example, the selection and assignment of instructors to the experimental and control groups were not based upon a random process. The General College Chairperson selected and assigned instructors. The selection and subsequent instructions presented to experimental group instructors by the General College Chairperson may have created an expectation in these instructors that contributed to instructor bias. In communicating class requirements and procedures to the experimental group instructors, the department chairperson most likely signaled to these instructors, unintentionally or intentionally, that the groups that they would be working with for the Fall term were special. This awareness and the chairperson's involvement may have influenced these instructors to be more conservative in their evaluation of students. As a result, experimental students did not, on average, perform as well academically as did students in the control group. Conceivably, the difference in academic performance may have been caused, in part or whole, by instructor bias.

The role the division chairperson performed as the organizer and implementer of the experimental groups may have confounded the results as alluded to above. It was learned, just before proposing the study project to the General College Division, that considerable discussion had occurred between some of the division's instructors and the chairperson regarding the efficacy of the learning community approach practiced at FMC. The chairperson was seriously considering abandoning the learning community approach. Upon receiving the study proposal, the chairperson elected to continue the learning community approach for one more year and to use the results of the study to make a final decision on whether to continue to use this social integration strategy and the collaborative instructional methodology. Within this context, it is possible that implementer bias may have impacted the execution of the learning community approach.

Another factor that may have confounded the results of the study was the truncated time period within which the study was conducted. A one-semester time period, in retrospect, was probably too brief a period to examine the dependent variables studied. Additionally, the newness of college life, the intense desire of the students to do well in their first semester of school could have created a Hawthorne Effect in either group. Under these circumstances, students would do well regardless of the differential treatment applied between groups. This may explain the similarity between the experimental and control groups across all variables, most specifically personal growth and persistence. Had the study been conducted over a two-semester period or even longer, the difference between the experimental and control group could have been assessed more definitively and the confounding Hawthorne Effect minimized.

Particular attention should also be given to the instrument used to assess the construct “personal growth”. Indeed, a more effective approach would be to determine how large a contribution does one feel the college made to one’s personal growth. Participants, most especially first-semester students, seem to be more comfortable responding to the college’s contribution question than answering questions that required an introspective assessment of the construct – personal growth.

Finally, the setting for the study was a private 4-yr liberal arts historically black college with an enrollment of 2000 students. Study participants were students enrolled in developmental courses (Math, English, or Reading). It is interesting to note that in spite of assessment indicators used to identify student for developmental course placement, many students refused to accept the fact that they need to take a developmental course. Some actively resisted their placement into developmental courses and others go so far as to withdraw from school rather than take remedial courses for which they receive no transferable college credits.

#### Recommendation for Future Research

This study should be replicated expanding the study period to at least one full academic year and with particular attention given to controlling extraneous variables that can distort and confound results. Controlling for confounding variables or modifying the design and procedures to minimize their affect would result in a more robust examination of the hypotheses. This would help to answer questions about the impact of learning community and residential status on first-year students attending a small 4-yr private historically black higher education institution.



## REFERENCES

- Abraham, J. & Wagnon, B. (1992). Helping students into college. Planning for Higher Education, 21 (1), 32-36.
- Adams, E., & Smith, B. (1987). Factors in student attrition among students at a historically black university. NASPA Journal, 24 (3), 33-38.
- Altbach, P., Berdahl, R., & Gumport, P. (Eds.). (1999). American higher education in the twenty-first century. Baltimore: The Johns Hopkins University Press.
- American College Testing Program. (2000). National dropout rates. Iowa City, IA: American College Testing Program.
- Anderson, G., Herr, K., & Nihlen, A. (1994). Studying your own school: An educators guide to qualitative practitioner research. Thousand Oaks, CA: Corwin.
- Anselmo, A. (1997). Is there life after freshman seminar? The case for the freshman seminar class reunion. Journal of the Freshman Year Experience & Students in Transition, 9 (1), 105-130.
- Astin, A. W. (1975). College Dropout: A national profile. Washington, DC: American Council on Education.
- Astin, A. W. (1977). Four critical years: Effects of college on beliefs, attitudes, and knowledge. San Francisco: Jossey-Bass.
- Astin, A. W. (1984). Student involvement: A developmental theory for higher education. Journal of College Student Personnel, 25 (4), 297-308.
- Astin, A. W. (1985). Involvement: The cornerstone of excellence. Change, 17 (4), 35-39.

Astin, A. W. (1987). Retaining and satisfying students. Educational Record, 68 (1), 36-42.

Astin, A. W. (1990). The black undergraduate: Current status and trends in the characteristics of freshmen (Technical Report). Los Angeles, CA: Higher Education Research Institute, Graduate School of Education, University of California.

Astin, A. W. (1992). "Forging the Ties that Bind." The College Board Review, 165, 12-15, 26-27.

Astin, A. W. (1993). What matters in college? Four critical years revisited. San Francisco: Jossey-Bass.

Astin, A. W. (1996). Involvement in learning revisited: Lessons we have learned. Journal of College Student Development, 37 (2), 123-134.

Astin, A. W. (1997). How "good" is your institution's retention rate? Research in Higher Education, 38 (6), 47-58.

Astin, A. W. (1998). The changing American college student: Thirty-year trends, 1996-1996. Review of Higher Education, 2 (2), 115-135.

Bagayoko, D., & Kelly, E. (1994). "The dynamics of students retention: A review and a prescription." Education, 115, 31-39.

Bashford, J. (1998). Placement decisions for first-time-in-college students using the computerized placement test (Information capsule). Miami Dade Community College, FL: Office of Institutional Research.

Bean, J. (1980). "Dropouts and turnovers. The synthesis and test of a causal model of student attrition." Research in Higher Education, 12, 155-187.

Bean, J. (1981a). The synthesis of a theoretical Model of student attrition. Paper presented at the annual meeting of the American Educational Research Association, Los Angeles, CA.

Bean, J. (1981b). Student attrition, intentions, and confidence: Interaction effects in a path model. Part I, the 23 variable model. Paper presented at the annual meeting of the American Educational Research Association, Los Angeles, CA.  
(ERIC Document Reproduction Service No. ED 202 443)

Bean, J. (1981c). Student attrition, intentions, and confidence: Interaction effects in a path model. Part II, the ten variable model. Paper presented at the annual meeting of the American Educational Research Association, Los Angeles, CA.  
(ERIC Document Reproduction Service No. ED 202 442)

Bean, J. (1982). "Conceptual model of student attrition: How theory can help the Institutional Researcher." In E. T. Pascarella (Ed.). Studying Student Retention (pp.17-33). San Francisco: Jossey-Bass.

Bean, J. (1986). Assessing and reducing attrition. New Directions for Higher Education. No. 53 (Managing College Enrollment).14 (1), 47-61.

Bean, J., & Kuh, G. (1984). The reciprocity between student-faculty informal contact and academic performance of university undergraduate students. Research in Higher Education, 21 (4), 461-477.

Borglum, K. & Kubala, T. (2000). Academic and social integration of community college students: A case study. Community College Journal of Research and Practice, 24, (7), 567-576.

Boudreau, C. & Kromrey, J. (1994). A longitudinal study of the retention and academic performance of participants in freshmen orientation course. Journal of College Student Development, 35, 444-449.

Boylan, H. (1999). Exploring alternatives to remediation. Journal of Developmental Education, 22 (3), 2-8.



Braxton, J., Bray, N., & Berger, J. (2000). Faculty teaching skills and their influence on the college student departure process. Journal of College Student Development, 41 (2), 215-227.

Braxton, J., Milem, J., & Sullivan, A. (2000). The influence of active learning on the college student departure process: Toward a revision of tinto's theory. Journal of Higher Education, 71 (5), 569-590.

Buckley, S. (1991). The new transfer student network: Retention and quality through student-faculty interactions. Washington, DC: U.S. Department of Education, Office of Education Research, Educational Resource Information Center (ERIC).

Cabrera, A., Casteneda, M., Nora, A., & Hengstler, D. (1992). "The convergence between two theories of college persistence." Journal of Higher Education, 63 (2), 144-163.

Cabrera, A., Nora, A., & Castaneda, M. (1992). "The role of finances in the persistence process." Research in Higher Education, 33 (5), 571-593.

Cabrera, A., Nora, A., & Castaneda, M. (1993). "College persistence: Structural equation modeling test of an integrated model of student retention. Journal of Higher Education, 64 (2), 123-139.

Cabrera, A., Nora, A., Bernal, E., Terenzini, P., & Pascarella, E. (1998). Collaborative learning: Preferences, gains in cognitive & affective outcomes, and openness to diversity among college students. Paper presented at the annual meeting of the Association for the Study of Higher Education, Miami, FL.

Cabrera, A., Stampen, J., & Hansen, W. (1990). Exploring the effects of ability to pay on persistence in college. Review of Higher Education, 13 (3), 303-336.

Canagarajah, S. (1997). Safe houses in the contact zone: Coping strategies of african-american students in the academy. College Composition and Communication, 48 (2), 173-196.

Carranza, C., & White, W. (1997). Issues for discussion in developmental education: Part I. Research and Teaching in Developmental Education, 14 (1), 57-70.

Carter, D. (1999). The impact of institutional choice and environment on african-american and white student's degree expectations. Research in Higher Education, 40 (1), 17-41.

Carter, D., & Wilson, R. (1996). Minorities in higher education: 14<sup>th</sup> Annual Status Report. Washington, DC: American Council on Education.

Castle, E. (1993a). Minority student attrition research: Higher education's challenge for human resource development. Education Researcher, 22 (7), 24-30.

Castle, E. (1993b). Auditing afro-american and hispanic student attrition and satisfaction in university environments: Can we learn to retain them? People and Education, 1 (4), 393-413.

Chonko, B. (1999). The impact of learning communities and university orientation 101 on student involvement, satisfaction, achievement, and retention at the University of Akron. Ed.D. diss, University of Akron. College of Education.

Clark, R. E. & Leonard, S. (1985). Computer research confounding. Paper presented at the Annual Meeting of the American Educational Research Association, Chicago, IL.

Cohen, J. (1999). Talking about college: Experiences of underprepared first year college students (Freshmen, Developmental Education, Literacy, Academically Underprepared) (Doctoral Dissertation, University of Illinois at Chicago, 1999). Dissertation Abstracts International, 60-06A, 1930.

Commander, N., Stratton, C., Callahan, C., & Smith, B. (1996). A learning assistance model for expanding academic support. Journal of Developmental Education, 20 (2), 10-12, 14, 16.

Congos, D., & Schoeps, N. (1997). A model for evaluation retention programs. Journal of Developmental Education, 21, (2), 2-9, 24.

Conklin, K. & Others. (1991). Kansas community colleges' "Class of 1987" five year longitudinal study. Johnson County Community College, Overland Park, KS. Office of Institutional Research.

Culross, R. (1996). Remediation: Real students, real standards. Change, 28 (6), 50-52.

Curtis, S. (1997). The relationship between involvement and the retention of freshman students in three private Christian colleges (Doctoral Dissertation, Ohio University, 1997). Dissertation Abstract International, 58-12A, 4579.

Davis, R. (1995). Perceptions of the college experience: African American on a predominantly white campus or a qualitative piece of the retention puzzle. Paper presented at the annual conference for Recruitment and Retention of Minorities in Education, Syracuse, NY.

Dey, E, & Astin, A. (1993). Statistical alternatives for studying college student retention: A comparative analysis of logit, probit, and linear regression. Research in Higher Education, 34 (5), 569-581.

Diaper, G. (1990). The hawthorne effect: A fresh examination. Educational Studies, 16 (3), 261-267.

DuFour, R. & Eaker, R. (1998). Professional learning communities at work: Best practices for enhancing student achievement. National Education Service, Bloomington, IN.



Durante, A. (1998). The importance of peer relations in college student retention: An exploratory study (Doctoral Dissertation, Fordham University, 1998). Dissertation Abstract International, 56-05A, 1673.

Ellis, D. (1998). Student retention strategies and teaching techniques. Rapid City, SD: College Survival.

Ender, S., Winston, R., & Miller, T. (1984). Academic advising reconsidered. In R. B. Winston, Jr., T. K. Miller, S. C. Ender, T. J. Grites, & Associates (Eds.). Developmental academic advising needs (pp. 3-34). San Francisco: Jossey-Bass.

Fecher, A. (Ed.). (1991). Recruitment and retention of minorities: Ten case studies from the neylan minorities project. Washington, DC: Association of Catholic Colleges and Universities.

Fernandez, Y., Whitlock, E., Martin, C., & Van Earden, K. (1998). Evaluation of a first-year pilot program for academically underprepared students at a private liberal arts college. (ERIC Document Reproduction Service No. ED 426 680)

Fielstein, L., & Bush, L. (1998). Remedial students' perceptions: Pre-college decision making, satisfaction with the freshman year, and self-perception of academic abilities. Journal of the First-Year Experience & Students in Transition, 10, (2), 41-55.

Flemming, J. (1984). Blacks in college. San Francisco: Jossey-Bass.

Gabelnick, F., MacGregor, J., Matthews, R., & Smith, B. (1990). Students in learning communities: Engaging with self, others, and the college community. New Directions for Teaching and Learning, 41, 61-75.

Gardner, J. (1986). The freshman year experience. College and University, 61 (4), 261-274.

Gass, M. (1990). The longitudinal effects of an adventure orientation program on the retention of students. Journal of College Student Development, 72 (Jan/Feb), 281-288.

Goodrich, A. (1980, April). Developing a data-driven retention model for improving minority student persistence in predominantly white and historically black colleges. Paper presented at the American Educational Research Association conference, Boston, MA.

Griffin, O., (1991). Strategies for black student retention: A conceptual review. Western Journal of Black Studies, 15 (4), 235-241.

Grosset, J. (1989). A conceptual framework for describing the causes of student attrition. (Institutional Research Report #44). Philadelphia Community College, PA: Office of Institutional Research. (ERIC Document Reproduction Service No. ED 310 819)

Gubbe, L. (1999). Impact of the hidden curriculum and student resistance on attrition in developmental education courses. Research and Teaching in Developmental Education, 15 (2), 37-45.

Halstead, R. (1998). Academic success support groups. Journal of College Student Development, 39, (5), 507-08.

Hanson, G., & Swann, D. (1993). "Using multiple program impact analysis to document institutional effectiveness." Research in Higher Education, 34 (1), 71-94.

Haralson, M. (1996). Survival factors for black students on predominantly white campuses. Paper presented at the annual meeting of the National Association of Student Personnel Administrators, Atlanta, GA.

Harris, D. (1990). The Glassboro State College retention program. Washington DC: American Association of State Colleges and Universities, Glassboro State College, NJ.

Herr, E., & Low, L. (2000). What have we learned about the relationships between student motivation and persistence. Research results presented by Elizabeth Herr and Beth Richter at the National Conference on Student Retention, Washington, DC.

Hodum, R., & Martin, O. (1994). An examination of college retention rates with a university 101 program. Paper presented at the annual meeting of the Mid-South Education Research Association, Nashville, TN.

Hossler, D. (1984). Enrollment Management. New York: College Entrance Examine Board.

Hyman, R. (1995). Creating campus partnerships for student success. College and University, 7 (2), 2-8.

Ignash, J. (1997). Who should provide postsecondary remedial/developmental education? New Directions for Community Colleges, 100, 5-19.

Inman, P., & Pascarella, E. (1997). The impact of college residence on the development of critical thinking skills in college freshman. Paper presented at the annual meeting of the Association for the Study of Higher Education, Albuquerque, NM.

Johnson, C. (1989). Mentoring programs, The freshman year experience. San Francisco: Jossey-Bass.



Johnson, M., & Molnar, D. (1996). Comparing retention factors for anglo, black, and hispanic students. Paper presented at the annual meeting of the Association of Institutional Research, Albuquerque, NM.

Kalsner, L. (1991). Issues in college student retention. Higher Education Extension Service Review, 3 (1).

Kanoy, K., & Bruhn, J. (1996). Effects of a first-year living and learning residence hall on retention and academic performance. Journal of the Freshman Year Experience & Students in Transition, 8 (1), 7-23.

Kellogg, K. (1999). Learning communities. EricDigest. (ERIC Document Reproduction Service No. ED 430 512)

Kember, D. (1989). "A longitudinal-process model of drop-out from distance education." Journal of Higher Education, 60 (3), 278-301.

Kennedy, G. (Ed.). (1995). Changes in social and academic integration in freshmen of high and average ability: Implication for retention. NACADA Journal, 15 (2), 9-19.

Kern, C., & Engels, D. (1996). "Developmental academic advising: A paradigm shift in a college of business administration." Journal of College Student Development, 37 (1), 95-96.

Kern, C., Fagley, N., & Miller, P. (1998). Correlates of college retention and GPA: Learning and study strategies, testwiseness, attitudes, and ACT. Journal of College Counseling, 1 (1), 26-34.

King, M. (1992). Academic advising, retention, and transfer. New Directions for Community Colleges, 21 (2), 21-31.

King, M. (1993). Academic advising: Organizing and delivering services for student success. New Directions for Community colleges, 21 (2).

Kinnick, M., & Ricks, M.. (1993). "Student retention: Moving from numbers to action." Research in Higher Education, 34 (1), 55-69.

Kluepfel, G. (1994). Developing successful retention programs: An interview with Michael Hovland. Journal of Developmental Education, 17 (3), 28-30, 32-33.

Koehler, G., & Burke, A. (1996). Transforming the treadmill into a staircase: Preparing nontraditional first-generation college attenders for success. (ERIC Document Reproduction Service No. ED 414 959)

Kraemer, B. (1993, November). The dimensionality of academic and social integration in persistence studies of hispanic students. Paper presented at the annual meeting of the Association for the Study of Higher Education, Pittsburgh, PA.

Kramer, G. (1990). The complete advisor. National Academic Advising Association Journal, 10, 5-7.

Krotseng, M. (1992). "Predicting persistence from the student adaptation to college questionnaire: Early warning or siren song?" Research in Higher Education, 33 (4), 99-111.

Lang, M., & Ford, C. (Eds.). (1992). Strategies for retaining minority students in higher education. Springfield, IL: Charles C. Thomas.

Lazarick, L. (1997). Back to basics: Remedial education. Community College Journal, 68 (2), 10-15.

Levitz, R., & Noel, L. (1989). Connecting students to institutions: Keys to retention and success. In M. L. Upcraft, Gardner, J. N. & Associates (Eds.), The freshman year experience: Helping students survive and succeed in college (pp. 65-81). San Francisco: Jossey-Bass

Licklider, P. (1993). Linking freshmen to increase retention. Community College Journal of Research and Practice, 17 (1), 59-73.

Liu, R. & Liu, E. (2000). Institutional integration: An analysis of tinto's theory. Paper presented at the Annual Forum of the Association for Institutional Research, Cincinnati, OH.

Lovelady, C. (1992). A study of influential variables, especially faculty-student interaction, affecting student retention (Doctoral Dissertation, University of Mississippi, 1992). Dissertation Abstract International, 53-12A, 4226.

Martaugh, P., Burns, L., & Schuster, J. (1999). Predicting the retention of university students. Research in Higher Education, 40 (3), 355-71.

Martin, O., & Williams-Dixon, R. (1991). The student-institutional fit for the African American student: Do college retention programs facilitate academic and social access. Paper presented at the annual National Conference on Racial and Ethnic Relations in American Higher Education, San Antonio, TX.

Matthews, R., Smith, B., MacGregor, J., & Gabelnick, F. (1996). Learning communities: A structure for educational coherence. Liberal Education, 82 (3), 4-9.

Maxwell, M. (1999). Connecting 500 students in one week! Cause/Effect, 22 (1), 59-60.

Mayo, J., Murgula, E., & Padilla, R. (1995). Social integration and academic performance among minority university students. Journal of College Student Development, 36 (6), 542-52.

McCabe, R., & Day, P. (Eds) (1998). Developmental education: A twenty-first century social and economic imperative. Laguna Hills, CA: League for Innovation in the Community College.

Meadows, D. (1998). Advising underprepared students: A design for a successful program. Research and Teaching in Developmental Education, 15 (1), 95-100.



Miller, K., & Gerlach, J. (1997). A study of student departure from developmental courses. Research and Teaching in Developmental Studies, 13 (2), 71-84.

Morrissey, A. (1991). Student activities: Focus on strengthening community through involvement. Campus Activities Programming, 24 (6), 45-47, 50-53.

Murdock, T. (1987). It isn't just money: The effects of financial aid on student persistence. Review in Higher Education, 11, 75-101.

Mutter, P. (1992). "Tinto's theory of departure and community college student persistence." Journal of College Student Development, 33, (4), 310-317.

Noel, L., Levitz, R., Saluri, D., & Associates. (1985). Increasing student retention. San Francisco: Jossey-Bass.

Nora, A. (1990). Campus based aid programs as determinants of retention among hispanic community college students. Journal of Higher Education, 61 (3), 312-331.

Nora, A., & Horvath, F. (1989). Financial assistance: Minority enrollments and persistence. Education and Urban Society, 21, 299-309.

Nordquist, E. (1993). Missing opportunities: Drop-outs and a failure to find a mentor. Paper presented at the annual meeting of the Western State communication Association, Albuquerque, NM.

Norman, K., & Norman, J. (1995). The synergy of minority student persistence and faculty renewal. Innovative Higher Education, 20 (2), 129-40.

Parrish, B., & Hiatt, R. (1989). Assessing the effects of developmental education courses: An integrative evaluative model. (ERIC Document Reproduction Service No. ED 308 464)

Pascarella, E. (1980). Student-faculty informal contact and college outcome. Review of Educational Research, 50 (4), 545-95.

Pascarella, E. (1985a). The influence of on-campus living versus commuting to college on intellectual and interpersonal self-concept. Journal of College Student Personnel, 26 (4), 292-299.

Pascarella, E. (1985b). Students' affective development within the college environment. Journal of Higher Education, 56 (6), 640-663.

Pascarella, E. (1989). College race and the early status attainment of black students. Journal of Higher Education, 60 (1), 82-107.

Pascarella, E., Bohr, L., Nora, A., Zusman, B., Inman, P., & Desler, M. (1993). Cognitive impact of living on campus versus commuting to college. Journal of College Student Development, 34 (3), 216-220.

Pascarella, E., DUBY, P., Terenzini, P., & Iversen, B. (1983). Student-faculty relationships and freshman year intellectual and personal growth in a nonresident setting. Journal of College Student Personnel, 24 (5), 395-402.

Pascarella, E., & Terenzini, P. (1978). Student-faculty informal relationships and freshman year educational outcomes. Journal of Educational Research, 71, 183-189.

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

Pascarella, E., & Terenzini, P. (1980b). Student-faculty and student-peer relationships as mediators of the structural effects of undergraduate residence arrangement. Journal of Educational Research, 73 (6), 344-353.

Pascarella, E., & Terenzini, P. (1981). Residence arrangement, student-faculty relationships, and freshman-year educational outcomes. Journal of College Student Personnel, 22 (2), 147-156.

Pascarella, E., & Terenzini, P. (1982). Contextual analysis as a method for assessing residence group effects. Journal of College Student Personnel, 23 (2), 108-114.

Pascarella, E., & Terenzini, P. (1991). How college affects students: Findings and insights from twenty years of research. San Francisco: Jossey-Bass.

Pascarella, E., & Terenzini, P. (1998). Studying college students in the 21<sup>st</sup> century: meeting the new challenges. Review of Higher Education, 21 (2), 151-165.

Pascarella, E., Terenzini, P., & Wolfe, L. (1986). Orientation to college and freshman year persistence/withdrawal decisions. Journal of Higher Education, 57 (2), 155-175.

Perna, L. (1998). The contribution of financial aid to undergraduate persistence. Journal of Student Financial Aid, 28 (3), 25-40.

Phillip, M. (1993). "Too many institutions still taking band-aid approach to minority student retention, experts say." Black Issues in Higher Education, 9, (24), 24-26, 298.

Pickering, J., & Others. (1992). The effect of noncognitive factors on freshman academic performance and retention. Journal of the Freshman Year Experience, 4 (2), 7-30.

Pike, G., Schroeder, C., & Berry, T. (1997). Enhancing the educational impact of residence halls: The relationship between residential learning communities and the first-year college experience and persistence. Journal of College Student Development, 38 (6), 609-621.



Raywid, M. (1979). In praise of the hawthorne effect: Perspectives from the pros. Journal of Teacher Education, 30 (3), 64.

Rendon, L., Terenzini, P., & Gardner, J. (1999). Meeting the challenges of student retention. Moderated by Carolyn Sawyer. 180 min. University of South Carolina. Videocassett.

Ross, J. A. (1995). Strategies for enhancing teachers' beliefs in their effectiveness: Research on a school improvement hypothesis. Teachers College Record, 97 (2), 227-251.

Rousseau, M. & Tam, B. (1996). Practical issues for teachers conducting classroom research. Teaching Exceptional Children, 28 (3), 52-56.

Rudolph, F. (1990). The American college & university: A history. Athens, GA: The University of Georgia Press.

Ryland, E., Riordan, R., & Brack, G. (1994). "Selected characteristics of high-risk students and their enrollment persistence." Journal of College Student Development, 35, 54-58.

Sadler, W., Cohen, F., & Kockesen, L. (1997). Factors affecting retention behavior: A model to predict at-risk student. Paper presented at the annual forum of the Association of Institutional Research, Orlando, FL.

Sanogo, Y. & Gilman, D. (1994). Class size and student achievement: Tennessee's star and indiana's prime time projects. (ERIC Document Reproduction Service No. ED 370 680)

Shucker, H. (1987). A study of student involvement in certain extracurricular activities and its relationship to retention and grade point average of freshmen at a church-related college (Doctoral Dissertation, University of South Carolina, 1987). Dissertation Abstract International, 48-08A, 2001.

Smedley, B., Myers, H., & Harrell, S. (1993). "Minority-status stresses and the college adjustment of ethnic minority freshmen." The Journal of Higher Education, 64 (4), 434-452.

Spann, M., & Calderwood, B. (1998). Increasing student success: An interview with Edward A. Morante. Journal of Developmental Education, 22 (1), 16-18,39.

Stampen, J., & Cabrera, A. (1986). Exploring the effects of student aid on attrition. Journal of Student Financial Aid, 16, 28-40.

Steinberg, L., & Dornbusch, S. (1991). Negative correlates of part-time employment during adolescent: Replication and elaboration. Journal of Developmental Psychology, 27 (2), 304-313.

Stewart, G., Russell, R., & Wright, D. (1997). The comprehensive role of student affairs in african-american student retention. Journal of College Admissions, 154, 6-11.

Stratil, M. (1988). The RMS Interpretive Guide for Advisors and Counselors. Coralville, IA: Noel/Levitz Centers for Institutional Effectiveness and Innovation.

Strommer, D. (Ed.). (1993). Portals of entry: University colleges and undergraduate divisions. The Freshman Year Experience. Monograph Series Number 12. Columbia, SC: University of South Carolina, The Freshman Year Experience.

Stupka, E. (1986). Student persistence and achievement: An evaluation of an extended orientation course. Rapid City, SD: College Survival, Inc.

Sullivan, A. (1997). Rites of passages: Student's views of academic and social integration. College Student Affairs Journal, 16 (2), 4-14.

Terenzini, P., & Pascarella, E. (1977). Voluntary freshman attrition and patterns of social and academic integration in a university: A test of a conceptual model. Research in Higher Education, 6 (1), 25-43.

Terenzini, P., & Pascarella, E. (1978). The role of students' backgrounds and levels of academic and social integration in college attrition: A test of a model. Paper presented to the annual conference of the American Educational Research Association, Toronto, Canada.

Terenzini, P., & Pascarella, E. (1980). Student/faculty relationships and freshman year educational outcomes: A further investigation. Journal of College Student Personnel, 21 (6), 251-258.

Terenzini, P., & Pascarella, E. (1982, March). Freshman attrition and the residential context. Paper presented at the annual meeting of the American Educational Research Association, New York, NY.

Terenzini, P., & Pascarella, E. (1984). Freshman attrition and the residential context. The Review of Higher Education, 7 (2), 111-124.

Terenzini, P., & Pascarella, E. (1991). Twenty years of research on college students: Lessons for the future. Research in Higher Education, 32 (1) 83-92.

Terenzini, P., Theophilides, C., & Lorang, W. (1984). Influences on students' perceptions of their academic skills development during college. Journal of Higher Education, 55 (5), 621-636.

Terenzini, P., & Wright, T. (1987). Students' personal growth during the first two years of college. Review of Higher Education, 10 (3), 259-271.

Theophilides, C., & Terenzini, P. (1981). The relationship between nonclassroom contact with faculty and students' perceptions of instructional quality. Research in Higher Education, 15 (3), 255-69.



Thomas, S. (1998). Ties that bind: A social network approach to understanding student integration and persistence. Paper presented at the annual meeting of the Association for the Study of Higher Education, Miami, FL.

Thomas, S. (2000). Ties that bind: A social network approach to understanding student integration and persistence. Journal of Higher Education, 71 (5), 591-615.

Thompson, C., & Fretz, B. (1991). "Predicting the adjusting of black students at predominantly white institutions". Journal of Higher Education, 62 (4), 37-50.

Tierney, W. (1992). "An anthropological analysis of student participation in college." Journal of Higher Education, 63, 603-618.

Ting, Siu-Man. (1998). Predicting first-year grades and academic progress of college students of first-generation and low-income families. Journal of College Admissions, 158, 14-23.

Tinto, V. (1975). "Dropout from higher education: A theoretical synthesis of recent research." Review of Educational Research, 45 (1), 89-125.

Tinto, V. (1982). Limits of theory and practice in student attrition. Journal of Higher Education, 53 (6), 687-700.

Tinto, V. (1987). Leaving college: Rethinking the causes and cures of student attrition. Chicago: University of Chicago Press.

Tinto, V. (1990). Principles of effective retention. Journal of Freshman Year Experience, 2, (1), 35-48.

Tinto, V. (1994a). Freshman interest groups and the first-year experience: Constructing student communities in a large university. Journal of the Freshman Year Experience, 6 (1), 7-28.

Tinto, V. (1994b). Constructing education communities: Increasing retention in challenging circumstances. Community College Journal, 64 (4), 26-29.

Tinto, V. (1997a). Enhancing learning via community. Thought & Action, 13 (1), 53-58.

Tinto, V. (1997b). Classroom as communities: Exploring the educational character of student persistence. Journal of Higher Education, 68 (6), 599-

Tinto, V. (1998). Colleges as communities: Taking research on student persistence seriously. Review of Higher Education, 21 (2), 167-77.

Toder, F., & Hartsough, C. (1993). "A collaborative approach to retain first-year undecided college students." Journal of College Student Development, 34 (2), 159-160.

Tucker, J. E. (1999). Tinto's model and successful college transitions. Journal of College Student Retention, 1 (2), 163-175.

Tukey, D. (1997). Models for student retention and migrations. Journal of the Freshman Year Experience, 3 (2), 61-74.

Upcraft, M. (1989). Understanding student development: Insight from theory. In M. L. Upcraft, Gardner, J. N. & Associates (Eds.), The freshman year experience: Helping students survive and succeed in college. San Francisco: Jossey-Bass.

Van-Allen, G. (1988). Retention: A commitment to student achievement. Journal of College Student Development, 29 (2), 163-165.

Volkwein, J., King, M., & Terenzini, P. (1986). Student-faculty relationships and intellectual growth among transfer students. Journal of Higher Education, 57, 413-430.

Volkwein, J. (1991, October). Improved measures of academic and social integration and their association with measures of student growth. Paper presented at the annual meeting of the Association for the Study of Higher Education, Boston, MA.

Vorhees, R. (1985). Financial aid and persistence: Do federal campus-based aid programs make a difference? Journal of Student Financial Aid, 15 (1), 21-30.

Watson, Z., Dumas, M., Mason, O., Haynes, H., & Dumas, T. (1994). The relationship between black student level of academic success and academic advisement: A case study. (ERIC Document Reproduction Service No. ED 379 553)

Weber, J. and Fleming, J. (1992). Creating the environment for minority student success: An interview with Jacqueline Fleming. Journal of Developmental Education, 16 (2), 20-22, 24.

Weidman, J. (1989). Undergraduate socialization: A conceptual approach. In Smart, J. C. (Ed.), Higher Education: Handbook of Theory and Research. New York: Agathon.

Wenglinsky, H. (1997). Students at historically black colleges and universities: Their aspirations & accomplishments. (Policy Information Report). Princeton, NJ: Policy Information Center, Educational Testing Service.

Whitt, E., Edison, M., Pascarella, E., Nora, A., & Terenzini, P. (1999). Interactions with peers and objective and self-reported cognitive outcomes across 3 years of college. Journal of College Student Development, 40 (1), 61-78.

Windschitl, M. (1998). Participant perspective on the learning team experience. Journal of College Student Develop. 39 (4), 373-82.



Wolfe, J. (1993). Institutional integration, academic success, and persistence of first-year commuter and resident students. Journal of College Student Development. 34 (5), 321-326.

Wortman, P., & Napoli, A. (1996). A meta-analysis of the impact of academic and social integration of persistence of community college students. Journal of Applied Research in the Community College. 4 (1), 50-21.

Wright, D. (1985). Many colleges freshmen take remedial courses. Washington, DC: National Center for Education Statistics. (ERIC Document Reproduction Service No. ED 262 742)

Zeller, W. (Ed.) (1991). Residence life program and the first-year experience. The Freshman Year Experience Monograph Series (No. 5). Columbia, SC: National Resource Center for the Freshman Year Experience.

Appendix A

## Computerized Placement Test (CPT)

## Memorandum

TO: [Faint text]

FROM: [Faint text]

SUBJECT: [Faint text]

[Faint paragraph of text]

[Faint paragraph of text]

[Faint paragraph of text]

## TESTING CENTER

### MEMORANDUM

TO: Mr. Harold Clarke, Jr.  
Vice President for Student Affairs

FROM: Jerry Lewis, Director of Testing *Jerry Lewis*

DATE: January 31, 2000

RE: Requested Computerized Placement Test (CPTs) Information

#### CPT

The CPT is an Adaptive Test. The sequence of test questions presented to each student and the questions themselves will vary because they are based on responses to prior questions. The primary function of the CPT's is to determine which course placements are appropriate for all new students in reading, mathematics and English.

It presents the test in a computer-adaptive mode, which benefits both students and administrators with quick and accurate testing. CPTs test scores are available immediately and may be supplied to the student and the academic advisor for timely decision making. CPTs enables the test order and the test session features to suit a particular institution's requirement.

The Reliability Coefficients are as follows:

Reading.....	0.90
English.....	0.91
Arithmetic.....	0.90
Elementary Algebra.....	0.92
College-Level Mathematics...	0.90

The Validity Coefficient of the test is 0.93.

#### Computerized Placement Advising, Guidance, and Management System (CPAMS)

CPAMS is designed for colleges to use with CPTs for college-level placements. CPAMS determines placements for development and college courses based on CPTs scores. (see placement rules attached).

Thank you.



Appendix B

College Outcomes Survey





## SECTION II—COLLEGE OUTCOMES

**IMPORTANCE:** Indicate to the LEFT of each item how **important** it is to you to attain that outcome (regardless of the amount of progress you have made toward attaining it).  
**PROGRESS:** Indicate to the RIGHT of each item how much **progress** you have made **at this college** toward attainment of that outcome (regardless of its importance to you).

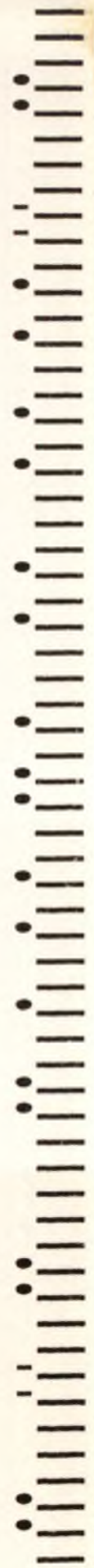
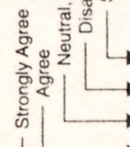
	IMPORTANCE						PROGRESS				
	VERY GREAT	GREAT	MODERATE (Average)	LITTLE	NONE		VERY MUCH	MUCH	MODERATE (Average)	LITTLE	NONE
<b>A</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1. Drawing conclusions after weighing evidence, facts, and ideas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2. Developing problem-solving skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3. Learning to think and reason	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4. Locating, screening, and organizing information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5. Thinking objectively about beliefs, attitudes, and values	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6. Developing my creativity; generating original ideas and products	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7. Improving my writing skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8. Reading with greater speed and better comprehension	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9. Speaking more effectively	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10. Further developing my study skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11. Listening to and understanding what others say	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	12. Learning to formulate and re-shape my lifetime goals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	13. Developing openness to new ideas and practices	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14. Acquiring knowledge and skills needed for a career	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15. Becoming competent in my major	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	16. Appreciating the fine arts, music, literature, and the humanities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	17. Broadening my intellectual interests	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	18. Discovering productive and rewarding uses of my talents and leisure time	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	19. Learning principles for improving physical and mental health	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	20. Developing effective job-seeking skills (e.g., interviewing, resume construction)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	21. Learning about career options	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	22. Applying scientific knowledge and skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	23. Learning principles for conserving and improving the global environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	24. Effectively using technology (e.g., computers, high-tech equipment)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	25. Learning about the role of science and technology in society	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	26. Understanding and applying math concepts and statistical reasoning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**B** Indicate your views of required courses *OUTSIDE* your major.

		IMPORTANCE						PROGRESS				
		VERY GREAT	GREAT	MODERATE (Average)	LITTLE	NONE	VERY MUCH	MUCH	MODERATE (Average)	LITTLE	NONE	
<b>B</b>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Required Courses <i>outside</i> my area of specialization helped me . . .	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	... think about my major in the context of a larger world view.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	... develop as a "whole person."	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	... appreciate great works of literature, philosophy, and art.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	... broaden my awareness of diversity among people, their values and cultures.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	... increase my knowledge of the earth and its physical and biological resources.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	... build a framework to organize my learning <i>within</i> and <i>across</i> areas of study.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	... become a more independent and self-directed learner.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**C** Indicate the extent to which you agree with the following statements about this college.

	IMPORTANCE						PROGRESS				
	VERY GREAT	GREAT	MODERATE (Average)	LITTLE	NONE	VERY MUCH	MUCH	MODERATE (Average)	LITTLE	NONE	
<b>C</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1. This college has helped me meet the goals I came here to achieve.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2. If choosing a college again I would choose this one.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3. My experiences here have equipped me to deal with possible career changes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4. I would recommend this college to others.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5. This college is equally supportive of women and men.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6. My experiences here have helped motivate me to make something of my life.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7. This college is equally supportive of all racial/ethnic groups.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8. I am proud of my accomplishments at this college.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9. This college welcomes and uses feedback from students to improve the college.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>





## SECTION II CONTINUED

Your personal growth since entering this college can be attributed to many factors, some of which may NOT be related to your experiences at this college.

**PERSONAL GROWTH:** Indicate to the LEFT of each item the extent of your growth (regardless of the extent of the contribution made by your experiences at this college).

**COLLEGE CONTRIBUTION:** Indicate to the RIGHT of each item the extent of the college's contribution (i.e., your college experiences both in and out of class) to your growth (regardless of the extent of your personal growth in a given area).

D	PERSONAL GROWTH						COLLEGE CONTRIBUTION								
	VERY MUCH	MUCH	MODERATE (Average)	LITTLE	NONE		NOT A GOAL OF MINE	VERY GREAT	GREAT	MODERATE (Average)	LITTLE	NONE	NOT APPLICABLE		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1. Becoming an effective team or group member	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2. Becoming more willing to consider opposing points of view	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3. Interacting well with people from cultures other than my own	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4. Improving my ability to relate to others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5. Preparing to cope with changes as they occur (e.g., in career, relationships, lifestyle)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6. Developing leadership skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7. Actively participating in volunteer work to support worthwhile causes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8. Learning to be adaptable, tolerant, and willing to negotiate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9. Seeking and conveying the spirit of truth	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10. Becoming more aware of global and inter-national issues/events	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11. Preparing myself to participate effectively in the electoral process	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	12. Becoming more aware of local and national political and social issues	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	13. Gaining insight into human nature through the study of literature, history, and the arts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14. Recognizing my rights, responsibilities, and privileges as a citizen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15. Becoming sensitive to moral injustices and ways of avoiding or correcting them	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	16. Understanding religious values that differ from my own	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	17. Taking responsibility for my own behavior	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	18. Learning how to become a more responsible family member	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	19. Clarifying my personal values	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	20. Developing a sense of purpose, value, and meaning for my life	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	21. Learning how to manage finances (personal, family, or business)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	22. Dealing fairly with a wide range of people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	23. Developing moral principles to guide my actions and decisions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	24. Acquiring appropriate social skills for use in various situations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	25. Becoming academically competent	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	26. Developing productive work relationships with both men and women	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	27. Increasing my intellectual curiosity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	28. Setting long-term or "life" goals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	29. Constructively expressing both emotions and ideas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30. Understanding myself, my talents, and my interests	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	31. Developing self-confidence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	32. Becoming more willing to change and learn new things	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	33. Developing my religious values	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	34. Improving my ability to stay with projects until they are finished	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	35. Becoming a more effective member in a multicultural society	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	36. Acquiring a well-rounded General Education	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



### SECTION III—SATISFACTION WITH GIVEN ASPECTS OF THIS COLLEGE

Indicate your level of satisfaction with each of the following.

Very Satisfied Satisfied Neutral Dissatisfied Very Dissatisfied No Rating Possible; Not Applicable; Not Able to Judge	Neither Satisfied nor Dissatisfied	1. Faculty respect for students 2. Quality of instruction 3. Availability of faculty for office appointments 4. Concern for me as an individual 5. Informal contact with faculty in non-academic settings 6. Quality of my program of study 7. Quality of academic advising 8. My sense of belonging on this campus 9. Class size 10. Flexible degree requirements 11. Services for victims of crime and harassment 12. Student mental health services 13. Residence hall services and programs 14. Veterans services 15. Language development services for students whose first language is NOT English 16. Student health/wellness services 17. Campus AIDS education program 18. Freedom from harassment on campus 19. Personal security/safety on campus 20. College response to nontraditional students (e.g., older, part-time) 21. Rules governing student conduct 22. College response to students with special needs (e.g., disabled, handicapped) 23. Campus atmosphere of ethnic, political, and religious understanding 24. College social activities 25. Opportunities for involvement in campus activities 26. Recreational and intramural programs 27. Career planning services 28. Practical work experiences offered in areas related to my major 29. Job placement services (e.g., opportunities to link with employers) 30. Personal counseling services (e.g., resolving personal problems) 31. New student orientation services 32. Financial aid services 33. New student placement in reading/writing/math courses 34. Student access to computer facilities and services 35. Developmental, remedial, and tutorial services, including writing labs and math labs 36. Library/learning resources center services 37. Transfer of course credits from other colleges to this college 38. Variety of courses offered 39. This college in general
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### SECTION IV—YOUR EXPERIENCES AT THIS COLLEGE

**A** How large a contribution do you feel your educational experiences at this college have made to your growth and preparation in each of the following areas?

Campus Contribution to Your Growth/Preparation				
Very Great	Great	Mod-erate	Little	None
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

Intellectual Growth (Acquiring Knowledge, Skills, Ideas, Concepts, Analytical Thinking)

Personal Growth (Developing Self-Understanding, Self-Discipline, and Mature Attitudes, Values, and Goals)

Social Growth (Understanding Others and Their Views, Adapting Successfully to a Variety of Social Situations)

Preparation for Further Study

Preparation for Career

**B** Indicate your cumulative college grade average.

A- to A (3.50-4.00)  
 B to A- (3.00-3.49)  
 B- to B (2.50-2.99)  
 C to B (2.00-2.49)  
 C- to C (1.50-1.99)  
 D to C- (1.00-1.49)  
 Below D (0.00-0.99)  
 Does Not Apply

### SECTION V—ADDITIONAL QUESTIONS

If an additional set of multiple-choice questions is included with this form, please use this section to record your responses.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD

### SECTION VI—COMMENTS AND SUGGESTIONS

If you wish to make any comments or suggestions, please write them on the lines below.

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DO NOT WRITE BELOW THIS LINE.

Appendix C

MANOR ANDERSON

Letter Approving Study from  
General College Chair

[The following text is extremely faint and illegible due to low contrast and blurring. It appears to be the body of a letter, possibly containing a date, recipient information, and the main text of the approval.]



*General College Division*  
**MEMORANDUM**

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**TO:** Mr. Harold R. Clarke, Jr.  
Vice-President for Student Affairs

**FROM:** Dr. Norma T. Brady, Chair *mbt*

**DATE:** October 6, 2000

**RE:** *Study for Doctorate*

**Proposal entitled:** Using Social Integration Strategies to Improve First-Year Student Retention at A Historically Black Higher Education Institution

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According to your dissertation proposal submitted to me and Mrs. Hunter-Callue in July, you plan to make a study from two-hundred (200) first year students enrolled in developmental courses here in the General College Division during the Fall 2000 term.

The selected one-hundred (100) students will be chosen according to their CPT scores and are expected to be in our Cluster Courses - or in a "collaborative learning community", taking three developmental classes and FMC 101 together. Another one-hundred (100) students will be assigned to a non-Cohort group and will take the same courses but independent of each other. You want to also look at their residential status: half will be residential and the other half commuter students.

At the time you spoke to me and Mrs. Hunter-Callue, I thought that this was an easy request since we DO place our students by the CPT if their ACT/SAT scores are low, and, of course, we have residential and non-residential students and we ALWAYS have "clustered" courses. My understanding was that these students would be carefully chosen this year and placed according to your request; however, it was more difficult than expected because of attrition for various reasons and the number became smaller than you needed. Frankly, we did not anticipate so many variables.

I have re-read your proposed abstract and I am not sure whether what we are doing will bring about real "damage control" but here is what we CAN do:

Pg -2 Study for doctorate

For the first one-hundred (100) in the Cluster (which you had hoped for,) we have ninety-two (92) students. There may be more but we will not know until Tuesday, October 10<sup>th</sup>. Fifty-six (56) of these students are residential and thirty-six (36) are commuter students.

**They are all taking F MC 101 and two or more developmental classes.**

For the first non-Cohort group, we have approximately seventy-two (72) students - Forty (40) are residential students and thirty-two (32) are commuter students.

**They are all taking F MC 101 and two or more developmental classes.**

We will pass out a survey on Tuesday, October 10<sup>th</sup> to get a clearer picture of the exact numbers. The rain storm kept a number of students from participating in the first survey because they were absent. After we collected the survey answers Mrs. Carla King-Crockett checked each and every student to be sure they were in FMC 101 and had two or more developmental courses.

In the past the Clusters were comprised mostly of students taking F MC 101 and three (3) developmental courses. This year, more students tested out of at least one of such courses than in previous years. Perhaps we should have been more careful in telling you that it was definite that we could have the same kind of students this Fall, 2000 since we had no way of knowing what would happen. My only suggestion is for you to adjust the study to these two groups since they are very similar.

The Cluster groups are not identified to the students, only to the teachers. Their classes cover the same material as they have generic syllabi. The difference comes in the activities. The Cluster groups do the following:

- \* participate in group activities in class, i.e., choose a common topic to work on together and divide into groups to do research etc., for a report presented as a group. This fosters interaction, more socialization etc.
- \* Mrs. Callue meets with these students twice a month to talk over problems, their adjustment to College life and other concerns. ( Light refreshments are served at these sessions to foster social integration - a departure from the academic atmosphere of the classrooms.)
- \* The Cluster students will also go on a field trip together. For example, they may visit the Coca-Cola Plant in Hollywood which includes a tour, discussion of the careers and jobs available and lunch is served afterwards; or to such places as the Miami Herald Newspaper Offices etc.

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**Note:** The numbers will be more definite after the second survey because a large number of students were unable to attend classes this week. They only meet on Tuesdays and Thursdays.

*Non - Cohort Group*

## Survey

This survey is to determine whether you live on or off-campus. Please indicate which in the blocks below.

Student's Name: \_\_\_\_\_

Student# \_\_\_\_\_

*I live in the dorms*

*Present on-campus mailing address:*

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

*Telephone #* \_\_\_\_\_

*I live off-campus*

*Present off-campus mailing address:*

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

*Telephone #* \_\_\_\_\_



# Survey

This survey is to determine whether you live on or off-campus. Please indicate which in the blocks below.

Student's Name: \_\_\_\_\_

Student# \_\_\_\_\_

*I live in the dorms*

*Present on-campus mailing address:*

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

*Telephone #* \_\_\_\_\_

*I live off-campus*

*Present off-campus mailing address:*

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

*Telephone #* \_\_\_\_\_

Appendix D

Comparing the College Contribution through Educational Experiences on Intellectual Growth

Contribution to Intellectual Growth	Experimental Resident	Experimental Commuter	Control Resident	Control Commuter	Total
Very Great	9 (19.1%)	4 (13.3%)	8 (17.8%)	6 (21.4%)	27 (18.0%)
Great	15 (31.9%)	11 (36.7%)	14 (31.1%)	12 (42.9%)	52 (34.7%)
Moderate	19 (40.4%)	11 (36.7%)	22 (48.9%)	10 (35.7%)	62 (41.3%)
Little	4 (8.5%)	2 (6.7%)	1 (2.2%)		7 (4.7%)
None		2 (6.7%)			2 (1.3%)
Total	47 (100%)	30 (100%)	45 (100%)	28 (100%)	150 (100%)

Note.  $X^2 = 14.056$ ,  $df = 12$ ,  $p = .297$

Appendix EComparing the College Contribution through Educational Experiences on Social Growth

Contribution to Social Growth	Experimental Resident	Experimental Commuter	Control Resident	Control Commuter	Total
Very Great	12 (25.5)	3 (10.0%)	6 (13.3%)	5 (17.9%)	26 (17.3%)
Great	12 (25.5%)	14 (46.7%)	14 (31.1%)	14 (50.0%)	54 (36.0%)
Moderate	19 (40.4%)	10 (33.3%)	22 (48.9%)	9 (32.1%)	60 (40.0%)
Little	2 (4.3%)	1 (3.3%)	2 (4.4%)		5 (3.3%)
None	2 (4.3%)	2 (6.7%)	1 (2.2%)		5 (3.3%)
Total	47 (100%)	30 (100%)	45 (100%)	28 (100%)	150 (100%)

Note.  $\chi^2 = 12.471$ ,  $df = 12$ ,  $p = .409$



Appendix F

Satisfaction with Faculty Respect for Students

Faculty Respect	Experimental Resident	Experimental Commuter	Control Resident	Control Commuter	Total
Very Satisfied	2 (4.3%)	8 (26.7%)	8 (17.8%)	6 (21.4%)	24 (16.0%)
Satisfied	19 (40.4%)	10 (33.3%)	17 (37.8%)	12 (42.9%)	58 (38.7%)
Neutral	13 (27.7%)	10 (33.3%)	12 (26.7%)	9 (32.1%)	44 (29.3%)
Dissatisfied	8 (17.0%)	1 (3.3%)	5 (11.1%)		14 (9.3%)
Very Dissatisfied	3 (6.4%)		3 (6.7%)	1 (3.6%)	7 (4.7%)
Undecided	2 (4.3%)	1 (3.3%)			3 (2.0%)
Total	47 (100%)	30 (100%)	45 (100%)	28 (100%)	150 (100%)

Note.  $X^2 = 19.553$ ,  $df = 15$ ,  $p = .19$

Appendix GSatisfaction with Quality of Instructions

Quality of Instructions	Experimental Resident	Experimental Commuter	Control Resident	Control Commuter	Total
Very Satisfied	4 (8.5%)	5 (16.7%)	4 (8.9%)	5 (17.9%)	18 (12.0%)
Satisfied	17 (36.2%)	15 (50.0%)	22 (48.9%)	11 (39.3%)	65 (43.3%)
Neutral	15 (31.9%)	8 (26.7%)	15 (33.3%)	10 (35.7%)	48 (32.0%)
Dissatisfied	7 (14.9%)	1 (3.3%)	2 (4.4%)		10 (6.7%)
Very Dissatisfied	2 (4.3%)		2 (4.4%)	1 (3.6%)	5 (3.3%)
Undecided	2 (4.3%)	1 (3.3%)		1 (3.6%)	4 (2.7%)
Total	47 (100%)	30 (100%)	45 (100%)	28 (100%)	150 (100%)

Note.  $X^2 = 14.432$ ,  $df = 15$ ,  $p = .493$

Appendix H

Satisfaction with Availability of Faculty for Office Appointments

Availability for Office Hours	Experimental Resident	Experimental Commuter	Control Resident	Control Commuter	Total
Very Satisfied	4 (8.5%)	7 (23.3%)	4 (8.9%)	6 (21.4%)	21 (14.0%)
Satisfied	22 (46.8%)	12 (40.0%)	21 (46.7%)	9 (32.1%)	64 (42.7%)
Neutral	17 (36.2%)	9 (30.0%)	14 (31.1%)	11 (39.3%)	51 (34.0%)
Dissatisfied	1 (2.1%)	1 (3.3%)	1 (2.2%)		3 (2.0%)
Very Dissatisfied	2 (4.3%)		2 (4.4%)	1 (3.6%)	5 (3.3%)
Undecided	1 (2.1%)	1 (3.3%)	3 (6.7%)	1 (3.6%)	6 (4.0%)
Total	47 (100%)	30 (100%)	45 (100%)	28 (100%)	150 (100%)

Note.  $X^2 = 9.894$ ,  $df = 15$ ,  $p = .826$



Appendix ISatisfaction with Feeling that College is Concern for Me as an Individual

Concern for Me	Experimental Resident	Experimental Commuter	Control Resident	Control Commuter	Total
Very Satisfied	5 (10.6%)	6 (20.0%)	5 (11.4%)	5 (17.9%)	21 (14.1%)
Satisfied	20 (42.6%)	9 (30.0%)	15 (34.1%)	14 (50.0%)	58 (38.9%)
Neutral	15 (31.9%)	13 (43.3%)	16 (36.4%)	7 (25.0%)	51 (34.2%)
Dissatisfied	3 (6.4%)	1 (3.3%)	3 (6.8%)	1 (3.6%)	8 (5.4%)
Very Dissatisfied	2 (4.3%)		2 (4.5%)		4 (2.7%)
Undecided	2 (4.3%)	1 (3.3%)	3 (6.8%)	1 (3.6%)	7 (4.7%)
Total	47 (100%)	30 (100%)	45 (100%)	28 (100%)	150 (100%)

Note.  $X^2 = 8.983$ ,  $df = 15$ ,  $p = .878$

Appendix JSatisfaction with Informal Contact with Faculty in Non-Academic Settings

Informal Contact	Experimental Resident	Experimental Commuter	Control Resident	Control Commuter	Total
Very Satisfied	5 (10.6%)	4 (13.3%)	6 (13.3%)	4 (14.3%)	19 (12.7%)
Satisfied	20 (42.6%)	12 (40.0%)	17 (37.8%)	13 (46.4%)	62 (41.3%)
Neutral	13 (27.7%)	12 (40.0%)	13 (28.9%)	9 (32.1%)	47 (31.3%)
Dissatisfied	5 (10.6%)	1 (3.3%)	2 (4.4%)	1 (3.6%)	9 (6.0%)
Very Dissatisfied	1 (2.1%)		3 (6.7%)		4 (2.7%)
Undecided	3 (6.4%)	1 (3.3%)	4 (8.9%)	1 (3.6%)	9 (6.0%)
Total	47 (100%)	30 (100%)	45 (100%)	28 (100%)	150 (100%)

Note.  $X^2 = 9.657$ ,  $df = 15$ ,  $p = .841$

Appendix KSatisfaction with Sense of Belonging on Campus

Sense of Belonging	Experimental Resident	Experimental Commuter	Control Resident	Control Commuter	Total
Very Satisfied	7 (14.9%)	5 (16.7%)	7 (15.6%)	4 (14.3%)	23 (15.3%)
Satisfied	15 (31.9%)	13 (43.3%)	20 (44.4%)	12 (42.9%)	60 (40.0%)
Neutral	20 (42.6%)	10 (33.3%)	12 (26.7%)	8 (28.6%)	50 (33.3%)
Dissatisfied	4 (8.5%)		4 (8.9%)	4 (14.3%)	12 (8.0%)
Very Dissatisfied	1 (2.1%)	1 (3.3%)	2 (4.4%)		4 (2.7%)
Undecided		1 (3.3%)			1 (.7%)
Total	47 (100%)	30 (100%)	45 (100%)	28 (100%)	150 (100%)

Note.  $\chi^2 = 12.406$ ,  $df = 15$ ,  $p = .648$



Appendix LComparing Response to Choice to Choose This College Again

Would Choose Again	Experimental Resident	Experimental Commuter	Control Resident	Control Commuter	Total
Strongly Agree	5 (10.6%)	5 (16.7%)	6 (13.3%)	7 (25.0%)	23 (15.3%)
Agree	12 (25.5%)	11 (36.7%)	16 (35.6%)	6 (21.4%)	45 (30.0%)
Neutral	15 (31.9%)	5 (16.7%)	17 (37.8%)	10 (35.7%)	47 (31.3%)
Disagree	9 (19.1%)	7 (23.3%)	3 (6.7%)	4 (14.3%)	23 (15.3%)
Strongly Disagree	6 (12.8%)	2 (6.7%)	3 (6.7%)	1 (3.6%)	12 (8.0%)
Total	47 (100%)	30 (100%)	45 (100%)	28 (100%)	150 (100%)

Note.  $\chi^2 = 13.383$ ,  $df = 12$ ,  $p = .342$